

small air forces observer

vol. 18 no. 4 (72)
December 1994

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GRUPO AEREO DE INSTRUCCION - Paraguayan Air Force
SQUADRONS OF THE ISRAELI AIR FORCE: UPDATE I
AIR FORCES OF THE 1920s: Part 4 - Siam
SOUTHERN RHODESIAN AIR UNIT
HUNGARIAN YAKOLEV IN WWII
T-6 MEXICAN DIVE BOMBER
LATIN AMERICAN T-6

vol. 18 no. 4 (72)

December 1994

MEXICAN DIVE BOMBER

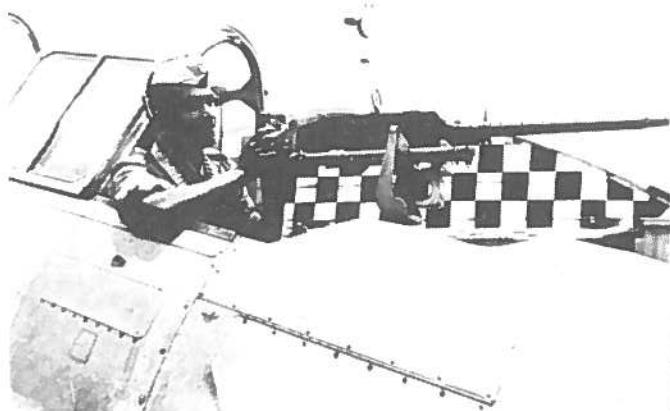
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SMALL AIR FORCES OBSERVER

The Newsletter of the Small Air Forces Clearing House

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SAFO EDITORIAL POLICY: The purpose of the SAFCH is to "promote interest in the history and modeling of the aircraft of the smaller countries". In support of this goal, the SAFCH encourages international cooperation in researching aviation history, both military and civil, from all periods of time, and for all the smaller countries. In return for this support, members are asked to submit occasional progress reports for publication in the SAFO. While the final results should appear in the most prestigious publication possible, it is re-

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An open letter to the Director Smithsonian Institution Air & Space Museum. "I have had a long time interest in aviation and have visited the Museum of Air & Space and its Paul Gerber facility, the Wright Patterson Museum, and aircraft museums of the UK and France. Each of these facilities is special in its own way, but one thing they have in common: they all require a great amount of space and large buildings to house the exhibits. All of this is expensive to acquire and maintain and, therefore, limits the scope and extent of the exhibits.

"It has occurred to me that you could greatly increase the variety and scope of the Air & Space Museum by displaying scale-model aircraft. The accuracy and historical value of these models is very impressive. It is very unfortunate that more people don't have the opportunity to see these masterpieces of human artistry and ingenuity. Furthermore, many of these models are the only representation of the aircraft other than plans or photographs.

"If the A&S Museum were to propose a permanent exhibit of these scale models, most of the builders, both national and international, would feel honored to donate their models to the Museum.

"In these times of budgetary restraint, this proposal is one of "less being more"; more aircraft being displayed in a smaller space for less cost and without sacrificing quality.

"One final comment. I don't build scale model airplanes. I only admire them."

Very truly yours, Francis Person (SAFCH #1391), 12830 Lakeview Dr., Lusby, MD 20657, USA.

COVER COMMENTS: This fine study of a Paraguayan Air Force Aerotec T-23 Uirapuru being prepared for flight by students of the Grupo Aereo de Instruccion introduces an article on the training group which begins on page 119. See pages 135 and 136 for other photos of the aircraft of this group. (Photo by Antonio Luis Sapienza)

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BRAZILIAN AIR FORCE Lithographs.

Four full-color have been received from a member in Brazil in exchange for his membership for 1995. Printed on heavy, glossy stock 30 cm by 20 cm with an image size of 23 cm by 14 cm. Aircraft depicted, all in Brazilian AF markings, are artistically rendered without sacrificing authenticity or accuracy.

The first print shows a pair of P-47 **Thunderbolts** in olive drab and neutral grey color schemes on a mission over Italy. The second depicts a formation of three camouflaged T-6 **Texans** in flight. The third shows a solitary Gloster F-8 **Meteor** above a solid cloud layer. The final print catches a pair of the F-80 **Shooting Stars** during a air-gunners practice.

These fine prints will make a great addition to any collection of aircraft art. They are available as a set from the SAFCH Sales Service for \$12.00.

AVIATION HISTORY COLOURING BOOK, Australian Air Force Colours & Markings, Ian K. Baker. Available from Ian K. Baker, 16 Immarna Road, Camberwell, Vic. 3124, Australia. Price US \$1.50 plus postage.

Don't let the title fool you. These are not something to amuse the kids on a rainy day. And, they're not drawings to which dad can color while calling it "research". They're not even books, since each one consists of a single folded sheet. What they are is best described by the author, "a series of handy mini monographs for the colours and markings files of modellers, illustrators and aviation enthusiasts". The first 19 parts include "over 30,000 words, 16 colour chips, and 95 drawings & diagrams". Available are: 1. Westland Wapiti. 2. Bristol Bulldog. 3. Hawker Demon. 4. Roundel, Tail Stripes & other Markings (1). 5. Roundels, Tail Stripes & other Markings (2). 6. Commonwealth Aircraft Corp. Camouflage Patterns. 7. CAC Wirraway (1). 8. CAC Wirraway (2). 9. CAC Wirraway (3). 10. CAC Boomerang (1). 11. CAC Boomerang (2). 12. Avro Anson (1). 13. Avro Anson (2). 14. DAP Beaufort (1). 15. DAP Beaufort (2). 16. Curtiss P-40 Kittyhawk (1). 17. Curtiss Kittyhawk (2). 18. Supermarine Spitfire (1). 19. Supermarine Spitfire (2). Each of these "mini-monographs" consists of four A-4 size pages: a cover, a "center spread" of drawings and text, and a final page of text. In the review sample available (Nos 2, 10, & 19), the drawings,

which are very well done, vary from multiple views of a single a/c (port, top, & bottom of Bulldog A12-3 and port and split plan view of Bommerang LBoE) to multiple side-views (7 Spitfires). Scrape views and enlargements of the insignia contribute to a well-rounded graphical presentation. Color chip in the review samples are Nivo, RAAF Light Green, and Ocean Grey. The text is extensive, usually three full-length, half-width columns, appears to be well researched and carefully thought out to provide the maximum amount of information for the modeler. There is a extensive list of references, and, in a refreshing bit of candor, the source on which the drawings are based is credited. Finally, each mini-monograph comes in a protective clear plastic cover "with universal holes" for mounting in a binder (also available from the author).

The author describes these as available at "a small-change price". I'm not too sure of this. If you want to whole set, it would cost US \$28.50, and you should be able to get more total information in a book costing just as much. On the other hand, if you want only a few of these, you will probably come out better than if you had to buy a whole book.

ARGENTINA

BOLETIN TECNICO (IPMS-Argentina, Casilla Correo 1370, 7600 Mar del Plata.)

2/13 (20 pages) "Curtiss Hawk 75-O" 5 pages including one photo, cover drawing, 2 pages of scale drawings (no markings), and side-view drawing of 'C-649' in 'verde oscuro' (Humbrol 30) over 'celeste' (Humbrol 65).

AUSTRALIA

AUSTRALIAN PLASTIC MODELLERS ASSOCIATION (APMA, PO Box 51, Strathfield, NSW 2135; 4 issues sea mail A\$27; air mail A\$30). 3/94 (32 pages) "Yanks in the RAF: The Lockheed Ventura" 5 pages including 7 photos and 2 side-view drawings of RAAF (sic) machines. "Fokker F.VII Series & Derivatives: Part 1" 4 pages including 1/72-scale drawings of Spanish Republican and Nationalist single-engine F.VIIa (with Jupiter and Lorraine engines respectively). "Geotwotter" 2 pages including 2 photos and side-view drawings of Geosurvey's Twin Otter. "The Douglas C-54 Skymaster" 5 pages on converting the Heller DC-6 to a DC-4. "From the APMA Archives" 2 pages with 3 photos of RAAF a/c (Gannet, Sea Fury, & Firefly).

AUSTRIA

OFH NACHRICHTEN (Oesterreichische Flugzug Historiker, Pfenningeldgasse 18/2/14, A-1160, Wien. Write for free sample.)

3/94 (32 pages) "Britische Kampfflieger uber Italien 1917/18" 8 pages including 2 photos and 3 side-view drawings (Camel, Berg D.I, & Bristol F.2b). "Britische Flugzeugverluste in Italien 1918" 4 pages including 3 photos (Bristol F.2b, RE.8, & Sopwith 1-1/2 Strutter). "Leutnant der reserve Wilibald Hahn" 3 pages including 2 photos and one 3-view drawing (Brandenburg C.I). "BAEG Sportflugzeug" 2 pages including 1/72-scale 3-view drawing. "Hohenfluge 1936" 3 pages including one photo and a 3-view drawings of Austrian Fiat CR.32. "Hopfner HV 15 in Kroatian Diensten?" one page including side-view drawings of HV 15 in Croatian markings.

BELGIUM

KIT (IPMS Belgium, Te Couwelaarlei 103 bus 21, B-1200 Deurne/Antwerp; 4 issues US \$25 in cash, International Postal Money Order for 750 BF, or American Express IMO for US \$25; add US \$5 (or 120 BF) for airmail. Please specify French or Dutch edition.

#93 1/94 (36 pages) "Sikorsky HSS-1" 9 pages including one color photo, 16 b&w photos, a page of sketches, and table of Belgian a/c. "Alouette III Belgian Navy" 6 pages including one color photo (in UN markings), 8 b&w photos (a/c under overhaul; a good diorama subject), and a page of sketches of a/c in UN markings.

CANADA

RANDOM THOUGHTS (IPMS Canada, Box 626, Stn. B, Ottawa, Ontario K1P 5R7; 6 issues for US \$20.00 in US \$22.00 elsewhere).

23/5 (24 pages) "Just another Day at Saskatoon Airport" 3 pages with 8 photos of colorful Mi-24 & Mi-8 commemorating anniversary of Columbus' discovery of America. "Beaching Dollies" 3 pages including 7 photos of light-plane beaching vehicles. "Pacific Coastal Airlines" 5 pages including 10 photos. "Weiss Manfred WM 21 Solvom" 2 pages

including 4 side-view drawings of a/c in Hungarian markings.

CZECH REPUBLIC

ZLINEK (Jaromir Stepan, P.S. 8, 763 14 Zlin 12). Text in English.

2/3 (32 pages) "Gotha Go-145" 6 pages including 8 photos (Slovak & Luftwaffe) and 2 pages of color drawings (Czech & Luftwaffe). "L-200 Morava" 16 pages including 5 color photos, 23 b&w photos, 3 pages of scale drawings, one page of sketches of interior, complete production list. "Su-25UTG: A Naval Trainer" 4 pages including color photo of Ukraine '64', close-up of tail hook, and 2 pages of color drawings of Russian a/c. "MiG Hellfighter" 5 pages on a Czech MiG-23MF in colorful "Devil" markings including 5 color photos, color cover painting, color side- and top-view drawings.

PLASTIC KITS REVUE (Vydavatelství Model Hobby Press, ul. 1. máje 11, 709 00 Ostrava-Mar. Hory, Czech Republic. 6 issues \$33 surface or \$45 air.) [Editor's note: This magazine has so much information in it that I've had to limit mention to only a few of the more exciting articles in each issue. Otherwise, the entire abstract section would be devoted to PKR.]

#20 (74 pages) "Ve Znamení Trojlistku: 2.cast" 5 pages including 9 photos and 5 color drawings of Croatian Bf 109. "Letecky den v Uppsala" 3 pages including 3 b&w photos and 6 color photos of RSwAF a/c. "Major Eino Luukkanen" 4 pages on Finnish ace including 5 photos, table of victories, and 5 color drawings of the a/c he flew (Buffalo, Fokker D-21, & Bf 109). "Galsky Kohout nad Indocinou: 1.cast" 4 pages including 8 photos and 6 color drawings of French a/c in Indochina (Oscar, Dakota, MS-500 Criqueur, Spitfire 9, AAC-1 Toucan, & Mosquito). "Bucker Bu 133 Jungmeister" 5 pages including 6 photos and 4 color drawings. "Letajici Cluny Consolidated PBY Catalina" 7 pages including 22 photos and 2 color drawings.

#21 (74 pages) "Ve Znamení Trojlistdku: 3.cast" 6 pages including 11 photos and 10 color side-view drawings of Croatian a/c (Benes Be-51, Fokker F.39, Fizir FP.2, Rogozarski R-100, Breguet 19, Macchi 202, Fiat G-50, MS-406, Bu-181, & Do-17Z). "Letajici Cluny Consolidated Catalina" 9 pages including 8 photos, 4 pages of scale drawings, and 3 color side-view drawings. "Vrtulnik Mi-8/17: 1.cast" 8 pages including 9 photos, 4 pages of scale drawings, and 4 color side-view drawings (Soviet, Indian, Finnish, & East German). "Galsky Kohout nad Indocinou: 2.cast" 5 pages including 6 photos and 4 color side-view drawings (Bf-108, Mosquito, Kingcobra, & Do-24). "Grumman XF5F-1 Skyrocket" 6-page review of the MPM kit including 2 photos, 2 pages of scale drawings, and a color 4-view drawing.

#22 (74 pages) "Mil Mi-8/Mi-17: 2.cast" 7 pages including 13 photos, 3 pages of scale drawings, and 4 color side-view drawings (all Czech). [Editor's note: What is that apparatus hanging on the Czech '7522?'] "Galsky Kohout nad Indocinou: 3.cast" 4 pages including 8 photos and 4 color side-view drawings (Helicat, Bearcat, & two Invader). "Consolidated PBY Catalina: 3.cast" 7 pages including 5 photos, 3 pages of scale drawings, and 4 color side-view drawings (Coastal Command). "Hawk 100" 6 pages including 6 photos, 2 pages of scale drawings, and 2 color side-view drawings (Abu Dhabi & South Korea). "Suchoj Su-24 Fencer" 3.cast" 7 pages including 8 photos and 2 color side-view

drawings (Soviet & Ukraine).

#23 (74 pages) "Kuvajtske Letectvo" 5 pages including 5 photos and 8 color side-view drawings (Hunter, Jet Provost, Strikemaster, Gazelle, Skyhawk, Caribou, Tucano, & Hornet). "Letecti Cetnici" 5 pages on the Czechoslovak Border Guard including 8 pages, table of a/c used, and 4 color side-view drawings (Skoda D.1, Avia B-534, Letov S-328, & Letov S-528). "Galsky Kooout nad Indocinou: 4.cast" 4 pages including 7 photos and 3 color side-view drawings (C-119, Dragonfly, & Sikorsky S-55). "Suchoj Su-24 Fencer: 4.cast" 6 pages including 8 photos and 2 pages of scale drawings. "Letajici Cluny PBY Catalina: 4.cast" 3 pages including 8 photos (RAAF, Danish, Argentine, and Brazil). "MiG-3" 6 pages including sketches and 2 pages of scale drawings. "MiG-55N" a small 3-view drawings of a Soviet "stealth" a/c. "Barvy: 3.cast" table of FS595 matches for Czechoslovak a/c colors.

#24 (74 pages) "Operation Pluto" 5 pages on a/c at the Bay of Pigs including 3 photos and 10 color side-view drawings (C-47, AT-6, T-28, Fury, T-33, two B-26, C-46, PBY, & S2F). "Valka v Koreji 1950-53" 5 pages including 7 photos and 5 color side-view drawings (four MiG-15 & La-11 in North Korean markings). "Archangelskij Ar-2" 5 pages on converting the kit of the SB-2 into an Ar-2 including 3 pages of scale drawings. "Italskt Letectvo 1935-45: 6.cast" 8 pages including 8 photos and 10 color side-view drawings (Fi-156, Ju-87D, three Fiat G-55, Bf-109G, Re 2005, Baltimore, Spitfire, & Aircobra). "Galsky Kohout nad Indocinou: 5.cast" 5 pages including 8 photos and 6 color side-view drawings (Spitfire, Privateer, Helicat, Helldiver, Corsair, & Goose). "Barvy: 4.cast" 4 pages relating RAF colors 1920-39 to FS595 including 9 side-view drawings.

#25 (74 pages) "Martti Tauno Johannes Kalima" 5 pages on Finnish ace including 9 photos and 4 color side-view drawings (MS-406, MS-410, & two Fokker D.21). "Straz nad Skagerrakem" 7 pages including 4 color photos, 9 b&w photos, and 7 color side-view drawings (three Draken, F-86D, F-100D, T-33, & AS.520 Fennec). "Stihacky Curtiss P-40 v SSSR" 6 pages including 8 photos and 5 color side-view drawings. "Barvy: 5.cast" 4 pages on RAF colors 1939-45 including table of FS595 equivalents and 14 side-view drawings.

#26 (74 pages) "Mi-4" 7 pages reviewing the KP kit including 12 photos and 3 pages of scale drawings. "MS-406 ve Francouzské Kampani" 10 pages including 6 photos, 3 pages of scale drawings, and 3 color side-view drawings. "Zhav Vystrely Studene Valky 1" 6 pages including 8 photos and 8 side-view drawings (Polish MiG-15, Czechoslovak MiG-15, Hungarian MiG-17PF, Soviet MiG-19PM, USAF F-84E & F-102, Italian F-84F, & Norwegian F-104G). "Barvy: 6.cast" 2 pages of tables relating Luftwaffe 1935-40 colors to FS595.

DENMARK

NYT (IPMS Denmark, c/o Bjorn Jensen, Rosenvaegets Alle 6, 2100 Kobenhavn 0; 4 issues for 90 Dkr surface, 100 Dkr airmail). Each issue includes a two-page English summary.

#65 (32 pages) "Heinkel He-111H-3" 2 pages on He-111 which crashed on Danish territory 39.10.09 including one photo and drawings. Photos: Danish Catalina 'L-861' & F-86D 'F-421'.

ENGLAND

IPMS MAGAZINE (Ernie Lee, 51 Ball Road, Hillsborough, Sheffield, South Yorkshire S6 4LZ,

6 issues for £20.00 (US subscription agent: Wise Owl Publications, 4314 West 238th St., Torrance, CA 90505; since exchange fluctuates write Joe for current rates).

4/94 (40 pages) "Russian MiGs" 5 pages including 5 photos and scale drawings of display color scheme carried by MiG-29C at IAT Fairford 1993. "Modelling Fairey's Ultralight Helicopter" 2 pages including 1/48-scale drawing. "A Survey of 1/72 Bf 109 Kits" 3 pages. "Under New Management" 2 pages including 4-view drawings of 109E in RAF markings. "The Eagle at Sea" 3 pages on modeling the Bf 109T.

5/94 (40 pages) "Battle of Britain: Modelling the Aircraft Involved - Part 4" 5 pages on modeling the Ju-88A-1. "Armhem VC" 4 pages on modeling Flt/Lt Lord's Dakota III. "Junkers Ju88G Nightfighter" 6 pages on modeling the nightfighter versions.

PLASTIC KIT CONSTRUCTOR (PAMAG (Publications) Ltd., 3 Lowfield Court, Old Forge Business Park, Sark Road, Heeley, Sheffield, S2 4HG; 4 issues £ 18.00. In USA/Canada order from J.J. Daileida, 4314 West 238th St., Torrance, CA 90505; since exchange rates fluctuate write Joe for current rates).

#39 (32 pages) Nothing of small-air-force interest, but "23+ kit reviews plus lots of decals reviewed".

FINLAND

MALLARI (IPMS Finland, PL 798, 00101 Helsinki 10; 6 issues \$20.00, no check accepted due to the high redemption costs).

#102 4/94 (20 pages) Nothing of small-air-forces interest.

SUOMEN ILMALUHIHISTORIAALINEN LEHTI (InScale 72, Makelankatu 5B10, 00550 Helsinki; Europe \$25, elsewhere \$30; payment by International Postal Order or in cash; no cheques of any kind accepted because of high redemption rates). Each issue includes an English summary.

2/1994 (16 pages) "Suursaari: Ilmasitaitimet 20.3.-28.3.1942" 6 pages including 17 photos (D.21, Hawk, Buffalo, I-153, Blenheim, SB-2, Fokker VIIa, Junkers K.43, & Do-22) of air activities in the recapture of the island of Suursaari (with table of 30 FAF aerial victories (5 by Buffaloes) listing pilot, s/n of aircraft, and type of a/c shot down). "Träpösi-Pöry" 4 pages including 4 photos, 6-view scale drawing, and 4-view tone drawing (PY-24) of VL Pöry II trainer with experimental non-elliptical wing. "AY311: Mita Tapahtui Koivulahdessa?" 3-page story of most serious commercial accident in Finland on 3 January 1961 when Finnair C-47A 'OH-LCC' crashed killing 25 persons (2 photos and side-view drawing of aircraft).

FRANCE

AVIONS: Toute l'Aéronautique et son Histoire (39 rue A. Briand, 62200 Boulogne Sur Mer, France. 420F for 12 issues).

#19 Sept 94 (52 pages) "L'Amiot 143: 1ere partie La Famille" 5 pages including 21 photos, 2 color side-view drawings, and color cover painting. (Anyone one for modeling the float version; it's almost as ugly as the Zubru on floats?). "Les Chasseurs Fiat au Paraguay" 5 pages including 16 photos. "Charles Nungesser: 3eme partie" 3 pages including 10 photos. "Les Fokker E-V Polonais" 4 pages including 8 photos, color drawings of 3 a/c, and b&w drawings of 2 a/c. "Le Heinkel He 60: 4eme partie" 4 pages with 9 unit insignia in color, a color side-view drawing of a Spanish a/c, and a

2-page cutaway drawing. "Les Curtiss P-40 des Tigres Volants au 1/72eme" 4 pages including 12 color photos of model. "L'Aero L-29 Delfin: 1ere partie" 7 pages including 19 color photos of Czech a/c in new overall grey scheme and 2 pages of 1/72-scale drawings. "Le Bloch MB 210: 5eme partie Le Bloch 210 en Espagne" 5 pages including 12 photos and 2 color side-view drawings (Spanish & Romanian). "Airco DH-5: 1ere partie" 8 pages including 14 photos, 2 color side-view drawings, and 2 pages of 1/72 scale drawings.

#20 Oct 94 (52 pages) "Le Terrain de Tournes-Belval: Bataille de la Meuse, Mai 1940" 5 pages including 10 photos of the aftermath of bombing of a French landing field. "Airco DH-5: Un de Havilland Rate: 2eme partie" 4 pages including 9 photos. "L'Amiot 143: 2eme partie" 8 pages including 23 photos, 2 pages of scale drawings, and 2 color side-view drawings. "L'Aero L-29 Delfin: 2eme partie" 7 pages including 9 color photos of Romanian Delfin, a 2-page cutaway drawing, and 2 pages of drawings of interior detail. "Le Grumman F8F Bearcat: Maquette Testors au 1/48eme et Transkit Hi-Tech" 3 pages with 7 color photos. "Les Junkers Ju 88 Espagnols" 12 pages including 22 photos, 3 color side-view drawings, tables, and color cover painting. "Charles Nungesser" 5 pages including 11 photos.

GERMANY

MITTEILUNGEN (IPMS Germany, Berengruenstrass 5-7, D-1000 Berlin 38; 12 issues DM 60.00 Europe, DM 65.00 USA, DM 70.00 Japan, DM 75.00 Australia).

4-94 (40 pages) "Oberleutnant Josef Heinzeller" 6 pages including 6 photos and 4-view drawings of Bf-109E-3 of Heinzeller.

ITALY

IL NOTIZIARIO (IPMS Italy, CP 182, 41100 Modena Ferrovia; one year 50,000 Italian Lira in Europe or US \$50.00 overseas).

2/94 (32 pages) "Reggianne Re 2002" 7 pages including 11 photos of a/c under restoration, 1/72-scale drawings, and sketches on correcting a major error in the Supermodel kit. "Gate Guardian a Rivolto" 2 pages including 3 photos and side-view drawing of Italian F-84F "Diavoli Rossi".

JP-4 (JP-4, CP 1550, 50100 Firenze; L 27.000 Europe, L 30.000 elsewhere).

7/94 (98 pages) Color photos: Spanish OV-10 'AE-020' and German Mi-8T '93+03'. "Un Grifo sul Mediterraneo" 6 pages including 8 color photos of Guardia di Finanza P.166.

8/94 (98 pages) Color photos: Russian Mi-24 and Slovak L-39 "White Albatros" '0112'. "80 Anni di Ritardi" 7 pages including 16 photos (SP.3, SIA.7b, Ca.3, SAML, CR.20, S.81, & S.79). "MiG Cinesi per il Pakistan" 6 pages including 10 color photos (F-6, A-5, & F-7).

9/94 (98 pages) Color photos: Ukrainian Il-18 & Il-76MD; Uruguay C-130B '591'; Peru An-32B; Slovak Su-25K '8074', MiG-21MF '8208' & MiG-29; and Swiss Alouette II. "L'Accademis Turca" 6 pages including 10 color photos (T-33, C-47, SA.260D, T-37, & T-38A). "GTV: Storie di Piloti Disarmati" 7 pages including 8 photos (FL.3, CR.42, Saiman 202, Ba.25, & Ro.41; in Luftwaffe markings).

PARAGUAY

MODELO TERAPIA (Antonio Luis Sapienza, PO Box 2721, Asuncion, Paraguay. US \$2.00 per issue). 2/2 (6 pages) "Maquetas Paraguayas: El EMB-

326B Xavante" 2 pages including 3-view drawing of complicated camouflage scheme. "Maqueta del Mes: El DH.82 Tiger Moth en Uruguay" 2 pages including 4-view drawing of color scheme.

2/3 (8 pages) "Maquetas Paraguayas: El Boeing 707" two pages including 3 side-view drawings (2 civil, one military). "Maqueta del Les: CAC Boomerang" 2 pages including camouflage scheme. "Entrevista: Comodoro Baldomero Augusto de Jesus Colom" 2 pages including 2 side-view drawings of Argentine Mirage IIIEA/Dagger.

USA

Chine Lines (IPMS Seaplane SIG, c/o Bill Devins, 107 Troy Hills Rd., Whippany, NJ 07981. \$8.00 for 4 issues).

#8 Fall '94 (18 pages) "The Fleet Model 50K Freighter" 4 pages including one photo, 1/72-scale 3-view drawing, and 3 side-view drawings. "Noorduyn Norseman - Taka 1/48" one page kit review. Martin JRM Mars - Air Craft 1/144 Vac-Form" 2 page kit review. "Consolidated PBY Catalinas" 6 pages of reviews of the Academy kits including one photo and 3 side-view drawings of RCAF machines.

WWI AERO (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$25.00 USA or \$30 overseas).

#146 (146 pages) "US WWI Failed Fighter Programs" 15 pages including 13 photos (Curtiss S-6, SE-5, USAO-1, USB-1, XB-1, LUSAC-11, Heinrich's advanced trainer, Curtiss Liberty Battle, Curtiss 18T, Pomilio FVL-8, Vought VE-8, Curtiss Dunkirk fighter, Thomas-Morse MB-2 & MB-3, Ordnance Engineering D, Albree's pursuit, Lanzus scout, and Christmas Bullet). "Curtiss Pushers Pt III" 18 pages including 17 photos and 3-view drawing of Willard's Banshee. "Christmas" 13 pages including 6 photos and 2 small 3-views of the Christmas Bullet. "Packard" 7 pages including 9 photos of 1919 Packard, DH-4C, Packard-Fokker D-VII, & Packard Commercial. "Drawings" Wight Seaplane, H-B C.I, Bleriot, & Traian Vuia Nr.1.

SKYWAYS (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$25.00 USA or \$30.00 overseas).

#32 (84 pages) "Planes for the Marshals of China" 9 pages including 11 photos (Ford 5-AT, Douglas DC-2, Sikorsky S-43, & Boeing 247D). "Three-Views" 3 pages with drawings of Hendy Hobo, Comper Swift, & Miles Sparrow Hawk. "Plane Questions: 4 pages with 11 photos. "Sikorsky Specs" 6 pages of tables. "Nighthawk" 6 pages including 9 pages on early glider. "Jacuzzi Monoplane" 2 pages including 3 photos. "Longster" 6 pages including 11 photos of restored a/c. "Parnall C.10" 2 pages with 3 photos of autogyro. "Heinkel He 111B-1" 16 pages on tests of a Spanish a/c including 23 photos and 2 pages of sketches. "Engine Installations" 4 pages of drawings. "Skyways Gallery" 4 pages with 12 photos (Caproni Ca 97, Cant 23, Cant 26, Polikarpov I-15). "Cockpits: Curtiss Kingbird" 2 pages including 3 photos. Photo: Romanian Bellanca 28-92 'YR-AHA'

PRI-FLY (IPMS Washington DC, c/o Carol Fleckenstein, 13816 Choptank Ct., Centreville, VA 22020; 4 issues \$8.00 for US, \$9.00 all others).

#88 (16 pages) "History of la Patrouille de France in 1/72 Scale" 5 pages including 6 side-view drawings (F-84G, Ouragan, Mystere IVA, Magister (2), & Alpha Jet). "Consolidated PBY-5 Catalina in 1/72 Scale by Minicraft" a 2-page kit review including side-view drawing of '14-P-1' at Pearl Harbor 41.12.07.

NEWS FROM POLAND

I would like to inform our readers of some new items recently on the market in Poland. I see from SAFO that you are keeping the readers well informed about new Broplan kits and HDL decals, therefore, I'll mention only that the newest Broplan kits are two versions of the Potez XXV with in-line and radial engines, the Yak-25RV Mandrake, and the Lim-5M (license-built MiG-17 with enlarged wing roots and double main wheels. Mr. Brozek plans to release a Lim-5 and Lim-6 in the near future and these will be a welcome addition to Dragon's promised MiG-17. The next in the line of excellent HDL decals include the MiG-17, and Su-17/20 & 22 which should be winners. Their latest two decal sheets are for the Mi-4 and MiG-25 (Indonesia, India, China, Poland, Libya, Ukraine are covered to name only the smaller air forces).

ALTAIR Publications have plenty of new interesting books, and, no doubt, have become the leading aviation-publishing house in Poland. First of all, they have recommenced publication of the oldest aviation magazine in Poland, *Skrzydłata Polska* (Winged Poland), with 14 issues starting from August '93. Almost every one brings something for the small-air-forces enthusiast, mainly from central and eastern Europe: Croatian MiG-21, CIS news, museum visits, Soviet Union mysteries now revealed, Austrian Drakens, and Finnish Caudron 71 were among the more prominent themes, plus, of course, full Polish aviation coverage both vintage and present.

The PKL series has reached 20 issues with the latest on the Harrier. The next few will cover the Yak-36/38, Su-15, MiG-21bis, and Tu-128. The quality of this handy profile is better with each issue and those on MiG-31, Su-24 and Tu-160 are real best sellers which contain plenty of information and photos never published before. They have started a new series called *Sekrety Konstrukcji Lotniczych*; the first, "MiG-25 - Steel Thunder" has 76 pages of photos, excellent drawings, color plates, and unknown facts. This will be followed by books on the SR-71, Tu-22, Yakolev's jet fighters, stealth aircraft, and more.

Another ALTAIR series is *Z Dziejow Lotnictwa* (From the History of Aviation) and the first book just released is on WWII Polish Aces; 40+ aces and their aircraft are covered. Photographs, color plates, and an attractive cover makes this inexpensive book an excellent compliment to the recently released Squadron/Signal book on PAF 1939-1945. As you probably already know, Aero Technika Lotnicza monthly ceased publishing with the issue 11-12/93. Their position will be taken over, most probably, by a totally new, bimonthly magazine called *Aeroplan* (no translation necessary) which will be aimed at aviation enthusiasts and modeler. The first issue, due any hour, will bring articles on the air forces of ex-Yugoslav countries, Polish Oef-fags, and photo-reconnaissance Spitfires. This should be another ALTAIR hit.

They are also publishing a series on campaigns including the Six-Day War, Iwo Jima, Crete '41, and Korea '50s have been released. Again photographs, color plates of equipment, tables, and maps are the main content of each of these handy reference books.

Speaking of campaigns, A.J. Press, of *Monografie Lotnicze* fame, has introduced a new series on Air Campaigns. Volume 1 is on Africa 1940-42. Printed in A-4 format on the highest-quality paper with excellent art work for both cover and color plates (8 pages), it covers in 50 pages all Italian, German,

and British types along with a full history. For SAFO readers, however, future releases on Vietnam, Korea, Stalingrad 42-43, Winter War, and The September Campaign should be of more interest.

Another new A.J. Press series is *Camouflage and Colour*. The first four issues will be devoted to the Luftwaffe, but future issues should be of more interest to our readers.

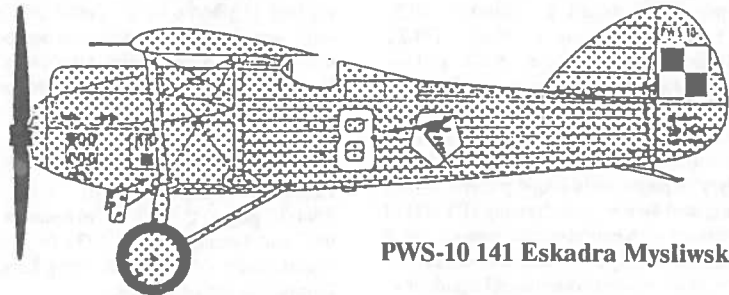
The *Monografie Lotnicze* has reached 16 titles with #12 He-111, #13 B-29 Superfortress, #14 Su-15, #15 Hellcat, and #16 Bf-110.

ACE Publication recently issued an interesting book on Eastern Front Aces covering not only Russian and German aces and their aircraft, but also those from Finland, Romania, Slovakia, Hungary, and Croatia.

Wydawnictwo Militaria of Warsaw (known better for their excellent AFV profiles) has issued the first book in a series on PAF aircraft. (Although not identified as a series, the large blue "1" superimposed over a Polish chessboard on the cover clearly suggests this.) This book covers the Lublin R-XIII, and it is absolutely the best monograph on this aircraft ever published. Over 100 photos, detail drawings, 4 pages of 1/72-scale drawings for both the land and float versions, cutaway drawings, lettering samples, and over 30 color profiles in 48 pages enables the reader who reads Polish to learn all about this machine. The modeler should be able to build a detailed model from any of the existing 1/72- or 1/48-scale kits without knowing a word of Polish. All photo captions are in English. Highly recommended. The next book will be on the P-24 fighter.

Bellona has released TBU #157 on the PWS-10. This contains 19 quality color profiles and a center spread 5-view, plus 26 photos covering Polish and Spanish Civil War machines. This is the best single source of information on this type.

Simultaneously, RPM has released a short-run,



PWS-10 141 Eskadra Mysliwska

1/72-scale, multi-media model of the PWS-10. It is of typical Merlin, Meikraft, etc. quality and consists of 15 plastic parts (two fuselage and wing halves, rudder, tailplane, wheels, radiator, engine fairings, seat). The radiator is repeated in white metal along with two types of propeller, the main undercarriage & wing struts, and tailskid. A photo-etched fret contains the prop boss, smaller struts, and other small items such as access steps and grips numbered one to seventeen. The instruction sheet gives the colors and markings for four Polish and one Spanish Civil War machines. However, the two decal sheets provides extra markings for an additional Spanish machine, the famous Chiquita (4-4). However, the olive-brown of the aircraft on the box art is too green, the TBU color profiles are closer to the mark. What about accuracy? The dimensions are spot on and the shape of the wing looks better than that of the Broplan vacuform. My only criticism is that the fuselage lacks the prominent

fabric covering. In addition, I wish they had included photo-etched cockpit detail (seat and instrument panel as a minimum) rather than those useless flat struts. (I can't understand why such manufacturers as TC Berg, Eduard, RPM, and others insist on including photo-etched struts which are with totally incorrect cross sections when Contrail, Aeroclub, Strutz are producing excellent material in plastic or white metal. Overall, this is a good kit of one of most wanted aircraft in the SAFO kit survey (4th on the list if my memory serves me well).

Warrior Models of Wroclaw has released a 1/48-scale, vacuform model of the PZL P-23 Karas. There are almost 60 parts crisply molded on three sheets of white styrene. These parts include not only the fuselage, wings, and tailplane, but also interior side walls and structure and smaller items. The ten clear parts for the canopy and lights are molded in a quality close to that of Koster. Oddly enough, the decal sheet, by Techmod, not only gives the markings for P-23 '6', call number '05 T', of the 41 Recce Bomber Squadron, but includes serials for a P-43 conversion, full decals for two PZL P-11c, and for Romanian IAR 80 and 81. No doubt this was done for economic reasons, and certainly discloses Warrior's plans for future kits. [Editor's note: Wow!] Highly recommended for any 1/48 WWII model collection.

Last, but absolutely not least, is a series of books on the PAF in 1919-1920, by Thomas Kopanski. These books are being published in limited quantity by the Military Historical Institute. The author's research into the early days of Polish aviation deserves our highest gratitude. The first, book, "16th (39) Reconnaissance Squadron 1919-1920" is an absolute gem. It covers the full story of this Eskadra with most of the information and photos being published for the first time anywhere in the world. There are 75 photos, plenty of excellent maps, tables, and color plates side-view drawings

of Polish Breguet XIVs and action paintings, e.g. a Breguet XIV in Middle-Lithuanian markings battling a Lithuanian LVG C-VI. There is a 10-page English summary of the whole story of the struggles with Bolsheviks, Ukrainians, Lithuanians, and the Battle of Warsaw. In addition, all photos and color plates have English captions. The next two books in this series will cover the 3rd Reconnaissance and the 7th Kosciuszko Squadrons. These will be followed by the stories of 1, 10, 12, & 13 Sqds. Don't miss any of these!

This seems to be the end of my somewhat long letter. While I've concentrated on SAF products, there are many more publications, decals, and models of more popular subjects being released in Poland. In any case, anybody interested in any of these products can easily reach me at my address below for further information and/or purchase. Wojciech Butrycz (SAFCH #981), ul. Alekandry 25m167, 30-837 Krakow, Poland.

THE SOUTHERN RHODESIAN AIR UNIT

Bob Massey

In 1934, the government of Southern Rhodesia voted £10,000 to be used to raise and train a small air arm. The original proposal of this money had been to help with the cost of the Navy, but it was felt that an air arm would provide a better use of this money in the defense of Rhodesia. This was the beginnings of military aviation in Southern Rhodesia. The proposed air arm was to be an air section within the existing territorial armed forces with command being placed in the hands of Major Dirk Cloete MC AFC. Major Cloete was already Director of Civil Aviation for Southern Rhodesia and to this title he now added the position of Staff Officer Air Service. However, it was to be a job in name only as, at this time, no military air force training facilities, airfields, or personnel existed in Southern Rhodesia.

The Beginning

It was not until November 1935 that arrangements were made with De Havilland Aircraft (Rhodesia) Ltd to use their flying school and personnel at the civilian airfield at Belvedere near Salisbury. This airfield had night landing facilities, hangars, and workshops as well as existing civilian training facilities. Therefore, this was the best available arrangement at that time.

Eight part-time candidates enrolled as trainee pilots in the first course at Belvedere. Training took place with the civilian instructors on weekends and on Wednesday afternoons. Arrangements were made, in 1936, for these airmen to join the Permanent Staff Corp of the Southern Rhodesian Defense Force as regulars.

Six apprentices were sent to Halton Royal Air Force Station in the UK to train as technicians. On their return to Southern Rhodesia, they were to form the nucleus of a ground crew. Of the six in this original course, three played a vital part in the growth of the Rhodesian Air Force and retired after many years of service having obtained senior rank.

In March 1936, on instructions from the Air Ministry, RAF Group Captain A T Harris OBE AFC (later to be better known as "Bomber Harris" - AOC in C Bomber Command during WW2) was sent to Southern Rhodesia to advise on the development of the Air Unit and the construction of a military airfield being built at Hillside some 5 miles from Salisbury. This airfield was constructed in thick bush country so that it was hidden from all but the closest inspection.

In August 1937, Flt Lt J A Powell and three NCOs were transferred from the RAF Central Flying School at Upavon to take up residence in Southern Rhodesia. A second RAF officer, V E Maxwell, arrived in October. By this time the hanger at the new airfield was nearly complete together with one runway of 1,000 yds by 150 yds. A second runway at right angles to the first was also nearly completed.

Aircraft Arrive

The unit's first military aircraft were despatched from RAF stocks in the form of six Hawker Hart Day Bombers. Their RAF codes, which they initially retained, were K2986, K3028, K3877, K3886, K3888, and K3889. They arrived packed at the British South African Police Depot Stores at Salisbury where they were partly assembled. They were then delivered by mule train to the new military airfield at Hillside where their assembly was completed.

A numbering system using the prefix SR and numbers 1 to 6 now replaced the old RAF numbers on these six Harts. However, for some time aircraft flew carrying both numbers before the change over was complete.

The three NCOs constituted the only technical staff available for this work so inspection and erection of the Harts were retarded by the requirement of maintenance of the machines in service. They also undertook conversion of two of the machines to dual control. This work load was not eased until the arrival of two LA/C fitters in August 1938.

By October 1937, the pupils on the course at the De Havilland school had completed 80 hrs of flying on the company Tiger Moths and were now ready to start their training on the new military aircraft. This could not start straight away as the new military airfield, with its two 1000-yd runways was not completed until December of that year.

On 14 December 1937, the Air Unit received its first official inspection in its new home by the officer commanding the Southern Rhodesian Forces. Also, in December, two machines carried out a communications flight to Lusaka, the seat of the Government of Northern Rhodesia.

Expansion and Training

The new year found the Air Unit training in earnest on their new equipment. February found the unit expanded to eight machines with the purchase of two civil aircraft: Tiger Moth VPYBH was given code SR7 while Dragon Rapide VPYBU became SR8. The latter machine was also used as a transport for the Governor, Sir Herbert Stanley, Prime Minister G M Huggins, and other government officials on trips around the colony.

During the visit of Marshal of the RAF, Viscount Trenchard, in February 1938, the unit was again employed. It provided an escort of two Harts while Trenchard was being flown about the country in a Rapide of the Rhodesia and Nyasaland Airways.

By 1 April, the Air Unit was now under the command of the newly promoted Sq. Ld. Powell and was separated from territorial force control. The first batch of pupils graduated from De Havillands and were awarded their flying badges on 12 May 1938. The Southern Rhodesian Forces had an Air Force at last.

Regular training of new pilots for the Air Unit began with six officers posted each year from the Territorial Active Force for flying training. Others were sent to the UK on short service commissions with the RAF. The air unit was growing.

A South African Air Force Envoy was lost near the Limpopo River in June 1938 and two of the Air Unit's Harts took part in the search. Three Air Rallies were attended during 1938 by formations of machines from the Air Unit. These rallies took place in three different locations in Mashonaland. One of the unit's machines carried out a photographic survey of the eastern border of Southern Rhodesia in July of 1938. This covered the country from Mount Selinda to the junction of the Sabi and Lundi Rivers, an area of about 350 square miles. The unit attended the Territorial Active Force annual camp at Gwelo in September 1938. There it carried out demonstrations of air cooperation with the ground troops.

More aircraft from RAF stocks, six Audaxes including

K3108, K3117, and K3127, were acquired in September of 1938 and given the local serials SR9 to SR14. These were flown from the RAF base at Heliopolis in Egypt to Southern Rhodesia by the new pilots of the Air Unit. Also, in September, five of the machines flew to Matabeleland giving displays at Wankie and Bulawayo as well as visiting Victoria Falls.

In early 1939, Major Cloete retired to become Director of Civil Aviation in South Africa and was succeeded by Lt Col C W Meredith as Officer Commanding Air Section and Director of Civil Aviation in Southern Rhodesia.

In April 1939, the Air Unit received its first fighter aircraft; three Gloster Gauntlets. These were again from RAF stocks and included K5347 and K7825.

The Southern Rhodesian Air Force at War

In August 1939, with war approaching, the Air Unit called up eight pilots, one medical officer, two NCOs, six air gunners, and six aircraftmen for full-time War Service. On 27 August, nine aircraft left the airfield at Hillside for service in Nairobi in Kenya. They took over duties from 233 Sqn. RAF which was moved up to the Sudan. Of these nine aircraft, 3 were Harts, 3 Audaxes, and 3 Rapides. The latter aircraft being flown by pilots of Rhodesia and Nyasaland Airways. This force was under the command of Sqn. Ld V E Maxwell who organized his Harts and Audaxes into 2 flights: A and B.

B Flight soon left for Garissa on the frontier between Kenya and Italian Somaliland while A flight moved to operate from the T-shaped runways at Isiolo. The three Rapides were returned to Salisbury by their Rhodesia and Nyasaland Airways pilots.

With the declaration of war in September, the Air Unit formed a static headquarters at Nairobi and extra aircraft were obtained locally in the form of two Tiger Moths and a Moth Major.

At this time, the numbering system used by the aircraft was changed to a three-digit system using the number "1" in front of the existing aircraft number and dropping the SR code, i.e. SR1 became 101.

On 19 September 1939, the Air Unit became the Southern Rhodesian Air Force with the two flights forming No. 1 Squadron. The Hillside airfield was renamed Cranborne Air Force Base and this now housed 4 Harts, 8 Moths of various types, and a Rapide. Additional aircraft and instructors were made available to the new air force in the form of personnel and equipment from the Salisbury and Bulawayo Flying Club. This allowed Sq Ld Powell to set about reorganizing and speeding up the training program. The new program called for a fully operational squadron in Kenya by mid January 1940 followed by a second in February and a third by the end of March. The number of instructors and aircraft available would not permit this expansion so partly-trained pilots had to be despatched to the RAF No. 4 Flight Training School at Habbaniyah in Iraq to complete their training. Of this new batch of recruits, one, J A G Parker, was to become Secretary of Defense and another, A O G Wilson, became Air Marshal and Chief of the Air Staff.

A batch of pilots, who had completed their training, were despatched to the No. 1 Squadron in Kenya so that A Flight could be transferred to Mombasa to carry out coastal patrols. They spent a fruitless month searching for the German Pocket Battleship Graf Spee and then moved on to yet another base at Wajir.

With A Flight move to Mombasa, B Flight moved to A Flight's old base at Isiolo. A Flight, in its turn, moved again to

Nairobi during Christmas 1939. With more trained pilots becoming available, a new flight, C Flight, was formed and posted to Buna on the Ethiopian frontier.

On 22 April 1940, the No. 1 Squadron of the Southern Rhodesian Air Force was absorbed into the RAF and became No. 237 (Rhodesia) Squadron RAF. The new squadron, now consisting of three flights of mixed Harts, Hardys, and Audax, continued to serve in Kenya until September when it was moved to the Sudan and reequipped with Lysanders.

Southern Rhodesian Air Service

At the start of the war, the government of Southern Rhodesia had taken over control of all civil aviation activities in the colony. The assets of the Rhodesia and Nyasaland Airways were bought for the sum of £20,000 and the company aircraft and personnel incorporated into the Air Unit. Some services of the old airways continued under government control under the name Southern Rhodesian Air Service (SRAS). Civil marking were used on aircraft flying into neutral countries such as Portuguese Colonial Territory and Beina. Military marking, however, were applied to all aircraft flying to allied countries such as Northern Rhodesia, Nyasaland, and the Union of South Africa and for flights within Southern Rhodesia itself. The new numbering system was used on these aircraft: a three-digit code starting with "2" or "3". For example, VPYBK, a DH-89a, became 304 and VPYAT, a DH-85 Leopard Moth, became 251. Rapide SR8 was transferred to the SRAS and became 300. A communications squadron using some of the aircraft of the former Rhodesia and Nyasaland Airways was formed at Belvedere, Salisbury, in early 1940. In March 1942, the Southern Rhodesian Air Service returned to a more civilian form with the return of civil codes on all its aircraft.

Aircraft of the SRAF

The drawings show representative aircraft of the period. All these aircraft are silver overall except where noted and carry standard British markings and black numbers.

(a) Hawker Hart SR1, in 1938, after the change from RAF serials to Southern Rhodesian serials. This was the first machine to carry the SR codes.

(b) Hawkers Hart Trainer 102 converted in Rhodesia from a standard Hart. This machine is shown carrying the revised code system introduced in 1939. Note the revised size and position of the roundel on the fuselage as well as the addition of the fin flash.

(c) Hawker Hart SR3 showing the addition of the codes to the existing RAF codes in 1937.

(d) De Havilland Dragon Rapide SR8 (ex Rhodesia and Nyasaland Airways) shown in the Air Unit markings in September 1938 before its transfer to the SRAS.

(e) The upper wing markings of Fig. D.

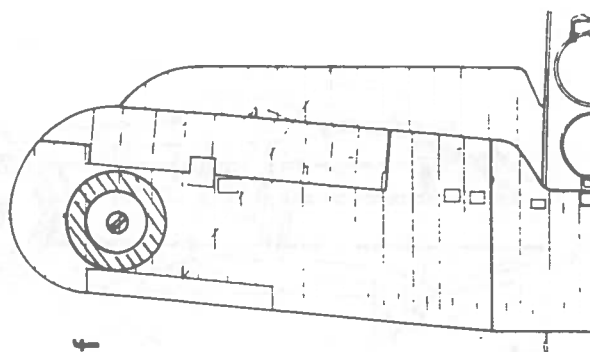
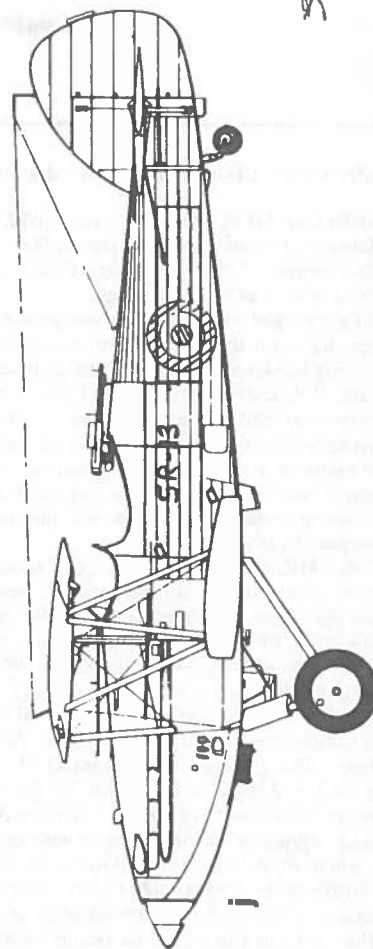
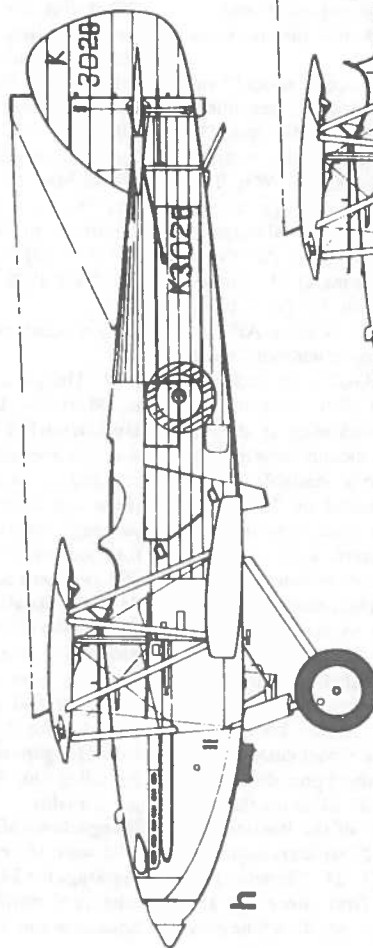
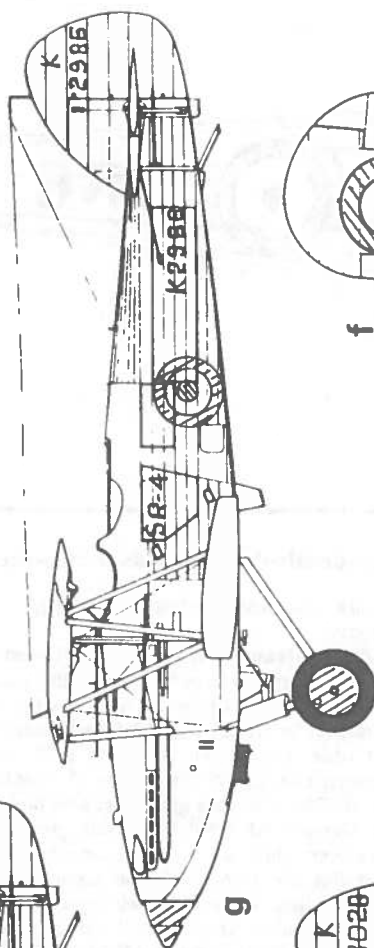
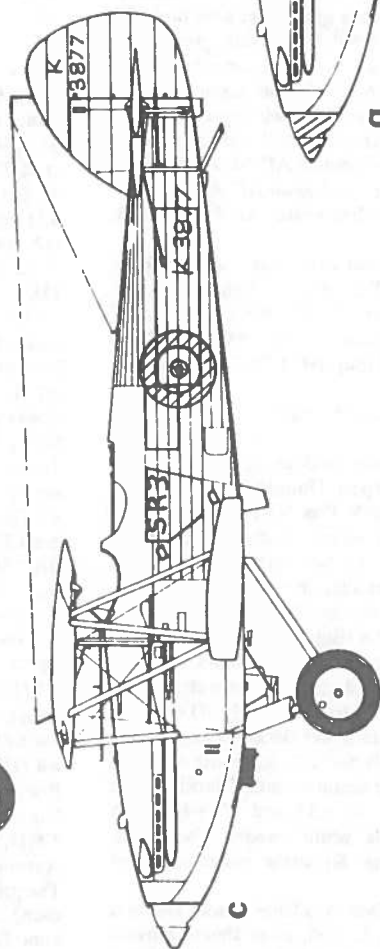
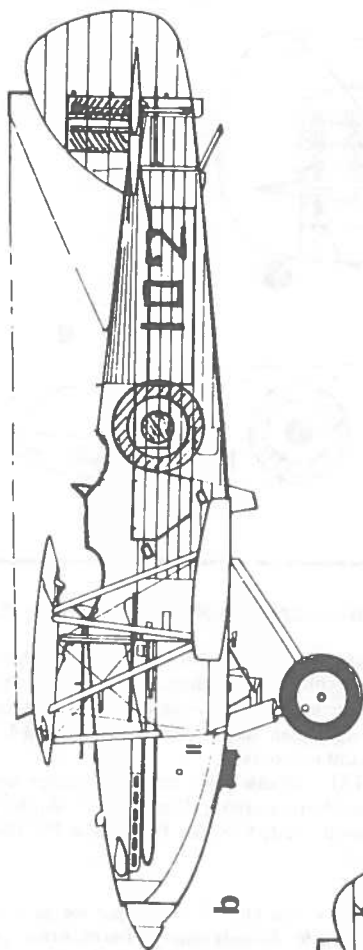
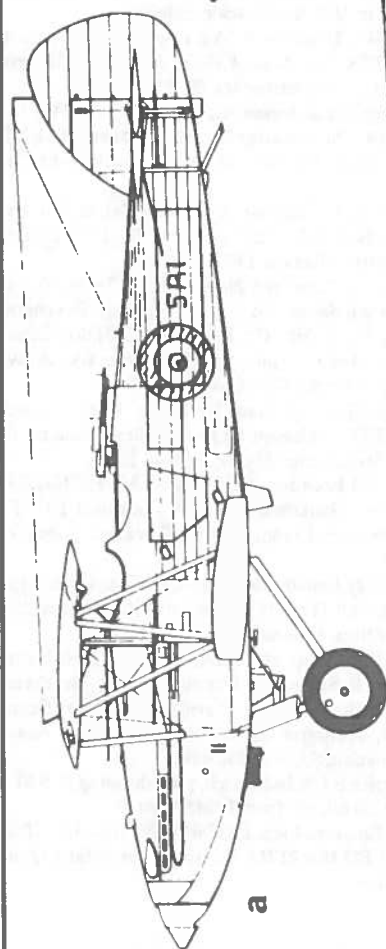
(f) The upper wing marking of Fig. A, B, G, and H.

(g) Hawker Hart SR4, a machine of the same period as Fig. C. Note, however, the position of the fuselage roundel. The wheel disc and spinner on this aircraft are painted red.

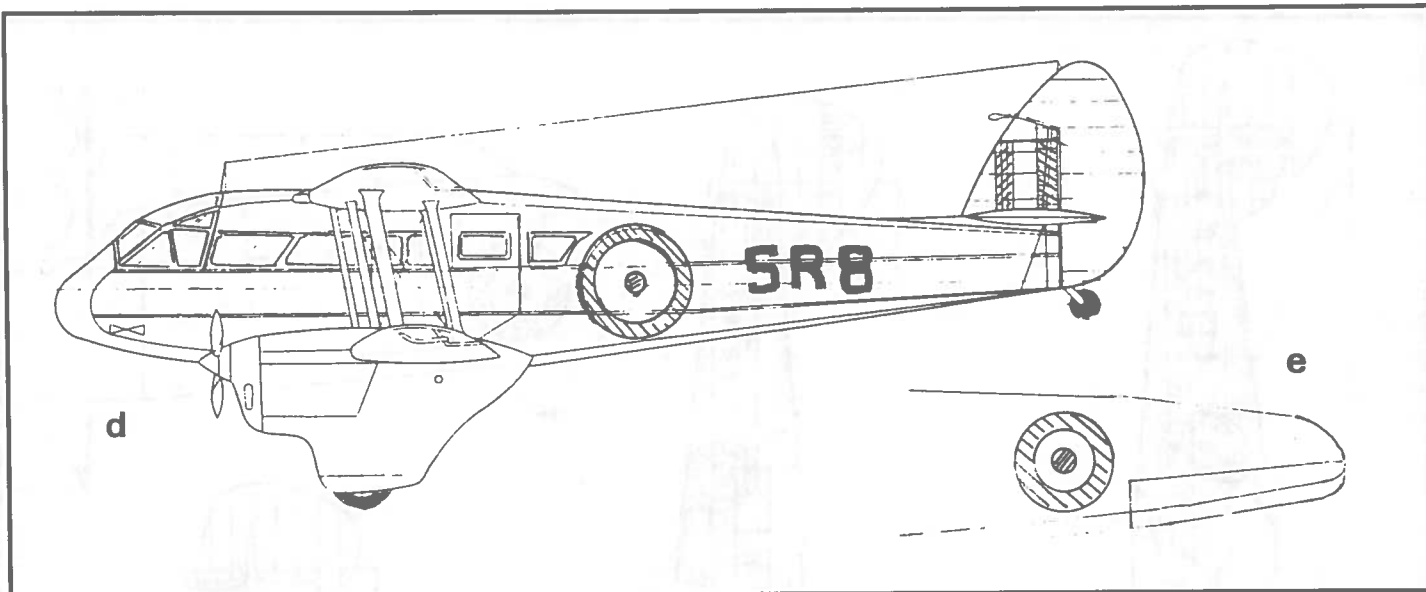
(h) Hawker Hart K3026 in the scheme it carried when first flown in Southern Rhodesia. This machine was used alongside SR3 and SR4 while still carrying only its RAF code in 1938.

(i) Hawker Audax SR13 in Kenya at the start of 1939.

Bob Massey (SAFCH #364), 9 Worrall Avenue, Arnold, Nottingham NG5 7GN, England.



BOB MASSEY
1935 to 1945 Small Airforces

[illegible]

THE T-6 MEXICAN DIVE-BOMBER

Santiago A. Flores

Mexican Dive Bomber is the title earned by the North American trainers during the early years of WWII. The Texans were delivered to Mexico at a time when German U-boats were attacking Mexican shipping on the American East coast and in the Gulf of Mexico. This article investigates the reported sinking of a U-boat by a Mexican Air Force AT-6 trainer. In evaluating these war-time reports it is important to remember that this occurred at a time when Mexico needed to strike back against the Axis to raise moral on the home front during the dark days of defeat for the Allies. Also remember that not much information could be gained to confirm a sub kill until the end of the war gave a chance to review German records.

Mexico Enter the War

Mexico was not one of the most favored countries of the Axis powers because of its opposition of the Italian invasion of Ethiopia and its support of the Spanish Republican government during that civil war of 1936-39, and its allowing the establishment of a Spanish government in exile in Mexico (a government that functioned until after the death of Franco). Another reason for this animosity was the seizure, by the government of General Manuel Avila Camacho, of 9 Italian and 3 German ships in Mexican ports. These 12 ships became part of the Mexican Merchant Navy and it would be ironic twist of faith that some of these same ships would later be sunk by U-boats.

After the attack on Pearl Harbor, on 7 December 1941, Mexico, along with most other Latin-American countries, broke diplomatic relations with Germany, Italy, and Japan. The threat of a Japanese invasion of the west coast (including the Baja California peninsula) prompted the Mexicans to mobilized units of the Fuerza Aerea Mexicana (Mexican A.F.) to patrol and guard the Mexican west coast. The air force was organized into two air regiments, each consisting of 3 squadrons. The principal equipment was general-purpose biplanes such as the Vought V-99 Corsairs, a few surviving Vought O2U-2M, the Mexican-built Azcarate Corsairs (O2U-4A), and Consolidated Model 21-M.(1) The 1st Air Regiment was sent to Baja while the 2nd stayed in Mexico City.

However, soon Mexico began to suffer her first shipping losses in the Atlantic and Gulf of Mexico. On 13 May 1942, the Mexican tanker "Potrero de Llano" was attacked off the coast, near Miami, and sunk by U-564 with the death of 14 crew members.(2) Seven days later, U-106 sinks the "Faja de Oro", one of the confiscated Italian tankers, between the U.S. and Cuba, killing 10 sailors.(3) After these attacks, and receiving no response from the Third Reich, Mexico officially declared war on the Axis powers on 28 May 1942. This set the stage for the arrival of the North American Texan trainers.

The Texan Arrive

The first priority was the defense of shipping in the Gulf of Mexico, not only Mexican but Allied. A group of Mexican pilots, under the command of Mayor P.A. Luis Noriega Medrano (4), was sent to the USA for a two-week training course on North American AT-6 trainers.

On 17 June 1942, six AT-6B, lead by Mayor Noriega, landed at Balbuena airfield, Mexico City. While these aircraft were trainers, they could be armed with machine guns and bombs. The bomb racks were of the flush type that could carry either five M-5 30-pound or five M-41 20-pound fragmentation bombs.

Two auxiliary bomb shackles could be added to each of these racks allowing a total of four Mk-I, 100-pound bombs to be carried in place of the smaller bombs. Based on photographic evidence (5), the Mexican T-6s usually carried two 100-pound bombs, one under each wing.

The AT-6s were equipped with three M-2 0.30-caliber machine guns: one fuselage gun synchronized to fire through the propeller arc, a gun mounted in the right outer wing panel, and a flexible gun in the rear cockpit. Two hundred rounds of ammunition were supplied for each fixed gun and five 100-round ammunition boxes could be carried in the rear cockpit to supply the flexible gun. The aircraft were equipped with the type N-3B optical sight.

Five days after their arrival, the T-6s conducted a dive-bombing demonstration near Mexico City for the President of Mexico and high Army officers. After this demonstration, the squadron, under the command of Noriega, was assigned to the "Region Militar del Golfo" with headquarters at the Port of Veracruz and under the command of General Anacleto Guerrero.

It was at this time that German U-boat (Type IXC) U-129, under the command of Kapitänleutnant Hans Witt, with 3 allied ships already to his credit, was about to strike. On 26 June, he attacked and sunk the Mexican tanker "Tuxpan", killing 4 crew members. The next day he sank the "Las Choapas" with the loss of 3 of its crew. The "Tuxpan" and "Las Choapas" were sunk not far from each other and about 40 miles off the coast.(6)

After these two sinkings, the AT-6's were put on 24-hours patrols to try to locate the sub and to assist in locating any additional survivors.

The Attack

The chance to strike back occurred on 7 July (others say 5 July) about 25-30 miles north of the Port of Tampico. Based on the newspapers accounts of the day you get the impression that the whole Squadron participated in the attack, but no crew members were mentioned by name. In 1944, while on a visit to the North American Plants, Mayor Noriega gave a more detailed account to the local plant newspaper:

"While I was on patrol in that vicinity, I received a message from a commercial plane that a submarine had been sighted nearby. The Major described how he spotted the partly-submerged sub soon after, cruising near the shore. His AT-6 had two 100-pound bombs on its wing racks. After getting permission to bomb, he dropped one bomb that hit toward the prow of the ship. The second hit the mid-section." The newspaper article quoted that one bomb landed 45 feet from the sub and the another 3 feet from the conning tower. The Major radioed the position of the sub and returned to base to reload leaving a U.S. Bomber that appeared on the scene to circle the target. By the time the Mayor got back to the target, he saw only "a smear of oil where the sub had been."

While the press reported that the sub sank immediately, the large oil slick that was observed only indicated that the sub had been damaged. Another pilot, who overflew the area, reported seeing a rubber boot in the water. But, a military communication reported, "The Zone Commander report said that the entire vicinity of the attack was being searched in an effort to determine whether the bombing had been effective".

The truth is that U-129 was not sunk in this action. She was not destroyed until she was scuttled by her own crew at Bordeaux, France, to avoid falling into allied hands on 18 August 1944. Capt. Hans Witt survived the war and died in post-war Germany.

As for Major Noriega, he would be promoted, in 1945, to the rank of Lt. Col. and he would command Esc. Aereo 101 equipped with Beechcraft AT-11 in Mexico City. He has since passed away. (7)

Footnotes

(1) The First Air Regiment received, in April 1942, six Vought OS2U-3 Kingfishers to be used in patrols. These aircraft were given numbers 69 to 74. They arrived at the airfield outside of Ensenada Baja California Norte, Mexico.

(2) U-boat U-564 was sunk on 14 June 1943 by No. 10 RAF Squadron of Coastal Command.

(3) U-Boat U-106 was attacked and sunk by the combine action of No. 461 RAAF Squadron and No. 228 RAF Squadron of Coastal Command on 2 August 1943.

(4) Maj. Noriega was born 10 June 1890 in Ciudad Guadalupe, Zacatecas. He did his studies in Coahuila and Aquacalientes, and in 1921 he joined the Mexican Military Naval Academy from which he graduated in 1924 as a Lt. in the infantry. He joined the Military Aviation School in 1927 receiving his wings in 1929. He participated in the campaigns of 1929 against Escobar. By 1938, as a Capt. 2/o. Class, he participated in the campaign against General Cedillo for which he was later promoted to Capt. 1/o. Class. From 1941 to possibly early 1942 he was a flight instructor at the Military Aviation School where he was promoted to Mayor P.A. on 20 November 1941.

(5) New photo evidence show one AT-6 trainer with 2 bombs rack under one wing (see photo).

(6) These would not be the last attack on Mexican shipping. U-boat U-171, under the command of Capt. Gunter Pfeller, sank the Mexican cargo ship "Oaxaca" on 27 July 1942 causing the death of six members of the crew. On 4 September 1942, the tanker "Amatlan" was sunk with the lose of 5 members of the crew. U-171 meet its fate on 9 October 1942 off the coast of Cherburg, France, when it hit a mine. Capt. Pfeller survived the sinking only to be killed in action two years later.

(7) Maj. Noriega, after 1943, was assigned as a flight instructor (chief) until April 1945. On 20 November 1944, he was promoted to Lt. Col. From 1945 to 1946, he was commander of Squadron 101 (Beech AT-11 Kansas Bombers), later Chief of Airfield for an advanced field at Veracruz for the Military Aviation School. In March 1947, he was made director of the aviation school. In February 1949, Col. P.A. Luis Noriega Medrano retired from the Air Force. No exact date ha been given of his passing away.

(8) The Air Order of Battle for the Mexican Air Force for 31 July 1942, as given by the American military attache, was as follow:

MEXICAN AIRPLANE STRENGTH (Source: National Archives, Wash D.C. File 9-22 CR. Aircraft.)

I. Planes		
Consolidated 21-M		10
Vought Corsair 02U4 (1929)		34
Vought Corsair V99M		10
Fleet F-11-32		6
Ryan ST		1
Douglas O-2M		2
Fairchild 82-A		1
Stearman 81		1
North American AT-6 (1942)		6
OS2U-3 (1942)		6
TOTAL		77

Ares EP planes are being manufactured in Mexico. 11 are on order. Gen. Fierro has purchased 56 motors to be used in these and additional trainers which are to be built. Lend Lease will supply Mexico with 12 AT-6 and 2 transports by the end of August.

II. Stations		No. Planes
Monterrey Aviation School		
	Fleet F-11-32	6
	Ryan ST	1
(ceased operations 29 Jan. 1942)		

Mazatlan, Sinaloa

La Paz B.C.	OS2U-3	6
Ensenada B.C (H.Q.)	1 Squadron	9
Sta. Rosalia B.C.	1 Squadron	9
Hermosillo, Sonora	1 Flight	3
Guaymas, Sonora	1 Flight	3
Mexico City	1 Flight	3
Tampico	Balbuena	all others
	East Coast Patrol	to be set up

III. Organization.

In February 1942, The Second Air Regiment was given the mission of patrolling the West Coast from the Headquarters at Ensenada B.C. They were organized into three squadrons of nine planes each divided into three flights of three planes. The five OS2U03's (sic) were assigned to patrol work based at Mazatlan. The six new AT-6's are reported to be scheduled for patrol on the coast, probably at Tampico. The Second air regiment was based at Balbuena (Feb. 1942) with all its planes under repair.

References

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2. "Gesta en el Golfo, la Segunda Guerra Mundial y Mexico", Enrique Cardenas de la Pena. Editorial Primicias SA, Mexico. 1966.
3. "El Ejercito Mexicano", Secretaria de la Defensa Nacionnal, Mexico DF. 1979.
4. "United States Submarine Losses, WWII", Naval History Division, Office of the Chief of Naval Ops. Wash. DC. 1963
5. "Iron Coffins", Herbert A. Werner. Holt, Rinehart and Winston. 1969.
6. "Facts on File", Yearbook, World Events Vol. II. 1942. Page 211.
7. "The Story of the Texan", Aviation Manual Series, Aviation. 1984.
8. AIR CLASSICS, Feb. 1968, Vol. 4 No. 3.
9. TAKE-OFF, NAA Dallas and Waco, Texas, Vol. IV, No. 33, Aug. 18, 1944 "Mexico's Noriega tell of sinking sub with AT-6"
10. Newspaper "El Heraldo de Baja California", Tijuana, Mexico. 17 June 1942; 22 June 1942; 8 July 1942; 9 July 1942
11. Newspaper "New York Sun", 8 July 1942.

Photo Captions

(Photos on page 104.)

a. A North American AT-6 Texan trainer of the Mexican Air Force. Probably used in anti-submarine patrols in the Gulf of Mexico circa 1942. Note the two bomb racks under the wing and the stowed 0.30-caliber machine gun in the back seat. (Manuel Ruiz Romero via Santiago A. Flores)

b. A previous published photo of a North American AT-6B Texan trainer during anti-submarine patrols in the Gulf of Mexico during 1942. It is armed, no doubt, with a 100 pound bomb under one of the wings. (Ing. Enrique Velasco via Santiago A. Flores)

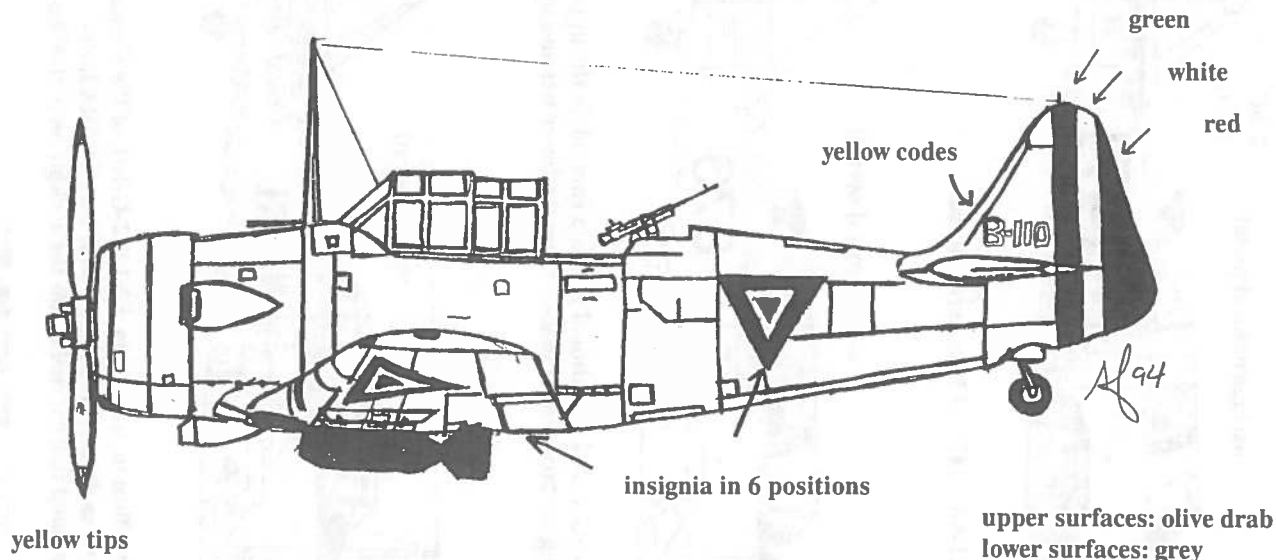
c. A rare shot of the rear 0.30-caliber M-2 machine gun of one of the AT-6 trainers of the Mexican Air Force. This photo was probably taken at Balbuena airfield, Mexico City - date unknown. (Ing. Enrique Velasco via Santiago A. Flores)

d. A Mexican soldier stands guard possibly by one of the first North American AT-6 Texan armed trainer that had arrived at the Balbuena airfield, Mexico City, circa June 1942. Note the 0.30 caliber machine guns in the wing and cowling. (America Vuela via Santiago A. Flores)

e. Could this AT-6, EAN-704 (Entrenador Avanzado North or Avanced Trainer North American No. 704) be one of the first six that arrived in 1942? One known number is B-110. (Manuel Ruiz Romero via Santiago A. Flores)

Santiago A. Flores, (SAFCH #), P.O. Box 430910, San Ysidro, CA 92143-0910, USA.

North American AT-6B Texan, Mexican Air Force B-110, assigned to Maj. P.A. Noriega Escudrilla for anti-submarine patrol over the Gulf of Mexico, 1942. (From *America Vuela*, Feb-Mar 1992)



-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-

"I am interesting in hearing from any one with knowledge of the book, 'History of the Egyptian Air Force' by Ali Muhammad Labib. Does anyone know where I could get a copy?"
Chris Thornburg (SAFCH #175), Mailer #41, Caller Box 10005 CK, Saipan, MP 96950-9506, USA.

"I am trying to find information on the camouflage and markings of the P-47D-28RE used by 79 Squadron RAF in Burma. Also needed is information on their squadron insignia."
John Raymond (SAFCH #1381), 68 Gordon Pkwy #2, Syracuse, NY 13219, USA.

"I'd like to hear from anybody with an interest in collecting plans and/or technical drawings of military aircraft. I especially need drawings of Italian, French, Japanese, Chinese military aircraft. I'm also trying to get plans/technical drawings of German WWII fighter projects. If anyone can help, please write with details."

"I also have a friend in the Czech Republic who goes to air displays in and around his country and takes lots of colour photos of military aircraft. He would like to trade photos for those of Western military aircraft. Anyone interested please write to me and I will forward letters on the him."

R. Noakes (SAFCH #1302), Box 605, Wembley, Perth, 6014 West Australia, Australia.

"For a long time I have been looking for the following. Books: 'Monogram Official Painting Guide'; Green 'Airplanes of the Third Reich'; Bunrin-do 'Japanese Military Aircraft Illustrated' Vol 1-3; Model Art #272. 329, 406, 416; Koku Fan Illustrated #68 & 69. I am also looking for the Revell 1/72 Sally, Nick, Hellen, Francis, FW-200 (military); ESCI/ERTL 1/48 Hs 123, Hs 129, & S 3 Viking; LS 1/72 2-engine aircraft; Tamiya 1/35 Matilda, Saladin, Su-100, Ambulance Rover, Scout Car, Centurion, & Ford GPA.

In exchange, I can offer all kits, books, journals, decals which are available in Poland and the ex-Soviet Union. New kits from Eastern Europe including: 1/35 Fiat 508 Lazik, Fiat 508 Ambulance, BT-5, Su-76, Ba-20, BA-20M, T-18, T-38, T-60, ZIS-3, PAK 40 German field gun, 120-mm Soviet mortar & 4-man crew, & Soviet tank crew. 1/72 Fulmar, Tupolev ANT-25, Polikarpov I-3, I-4, I-15, R-5, I-185, Su-9, Su-25UB, Su-27, La-5, La-15, La-176, Wyvern, Blackburn Roc, Be-4 (KOR-2) seaplane, Grigorovitch M-5 seaplane, Fokker F-VII Southern Cross, Pe-2, Pe-3, Yak-4, Potez XXV, Yermolayev Er-2, Fokker F-VII with floats. 1/48 P-66 Vanguard, Morane G, Polikarpov I-153, Yak-3, La-7, Su-15, Su-22; paper models in any scale; decals by Travers, HDL, Techmod, Hit Kit, etc. FAX (482) 77 39 662.

Bogdan Braniewski (SAFCH #802), PO Box 73, 05-075 Wesola, Poland.

"It is reported during the late 1930s that an Air Unit was to be added to the local defense forces of Ceylon. The local government passed some money, but was it formed? Has any one out there any information? Has anyone a contact in Hong Kong. I know of the existence of photographs of the pre-WWII Hong Kong Air Unit, but I need some one to sort them out."

Bob Massey, Aviation Historian: 1935 to 1945 Small Airforces, (SAFCH 364), 9 Worrall Avenue, Arnold, Nottingham NG5 7GN, England.

"If you need 3 views, photos, specs on any aircraft from any era (commercial, civil, military, all countries), we have or we will research it for you. Research Packages are only \$5.95 plus \$3.00 S&H. Obscure aircraft are our specialty. LSASE or write for free info on our services write to address below. "Needed: Help finding data such as 3 views, photos, specs on the following aircraft. Hirsch H100 (French twin-engine midwing), Croses EC-6 (similar to a Flying Flea from France), Fizir AF.2

(Yugoslav amphibian). Anyone who helps will get free research service."

Aircraft Research Ltd., John Raymond Mgr. (SAFCH #1381), 68 Gordon Pkwy. #2, Syracuse, NY 13219, USA.

"I have the following books for exchange: 'Legil-raboni Magyaronzagar' (Air War over Hungary) I & II, hardbound, 600 pages, 450 photos and drawings; 'Igereteb a Latonai Repules Tortenetebol'; 'A Magyar Howedrig Kgyverete'; 'History of Hungarian Military Aviation'; back issues of 'Aero Historia'; and Maket Studio publications."
Peter Mujzer (SAFCH #1272), Ezredes U.S/D III/11, H-1024 Budapest, Hungary.

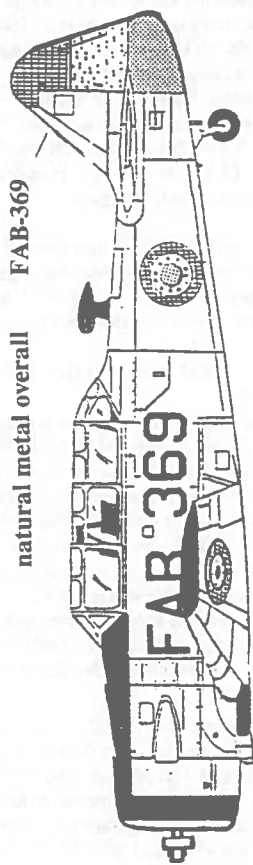
"I'm looking for photos of US and foreign military Fairchild PT-23 and Republic Sea Bee. The PT-23s served in Latin American air arms. I have the markings for an Israeli Sea Bee, but I need everything else."

Tom Young (SAFCH #56), PO Box 159, Olema, CA 94950, USA.

[Editor's note: Tom's Model-Aire International produces a 1/72-scale, resin-cast kit of the Fairchild PT-19 (\$17.00), a conversion kit to model a PT-26 (\$3.00), and will soon release a conversion kit to make the PT-23. Other kits available from MAI include Yak-11, Mi-1, Waco UPF-7, & CW.21 Demon, all at \$17.00 each. Tom also offers a Research Service; he says, "Send a list of what you seek and what material you already have and a \$5.00 deposit. Average fee is \$20, turnaround time about two weeks. Please write for further information."]

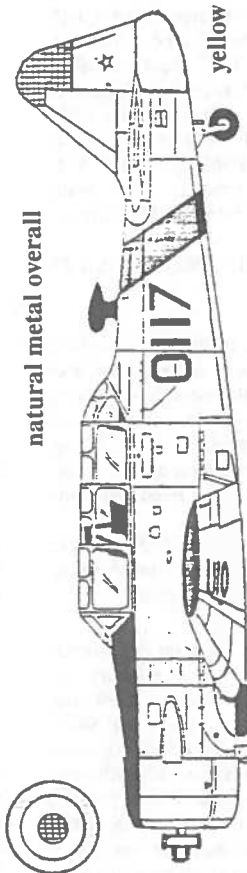
"I have a question about P/F-51's in the South Vietnam AF. Has anyone ever heard of this? In everything I've read and seen on the VNAF, the 51's never come up. They are suppose to have come form Korea and used in some kind of training."
E.L. Bud Stringer (SAFCH #1073), PO Box 441, Sonoita, AZ 85637, USA.

AT-6G
FAB-369
natural metal overall



1. Bolivian AF, AT-6-G, FAB369, Grupo Aereo 61 at Robore AB, 1990. This was the last Texan to serve with the Bolivian AF.

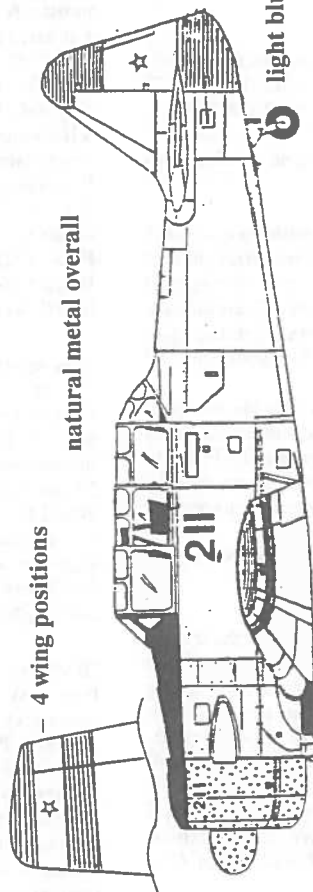
natural metal overall



2. Paraguayan AF, AT-6-G, 0117, at Nu-Guazu AB, 1975. The national insignia carried on the upper left and lower right wing surfaces and a large black 0117 is carried on the lower left and upper right wing surfaces.

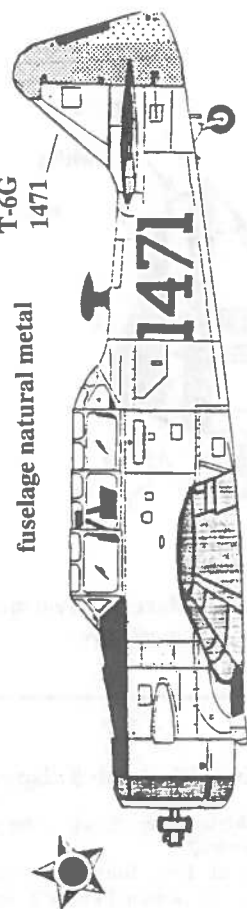
4 wing positions

natural metal overall



3. Honduran AF, AT-6G, 211, at Tegucigalpa, 1983. This plane, together with 208 & 212, was sold to a private collector in California.

fuselage natural metal
T-6G
1471

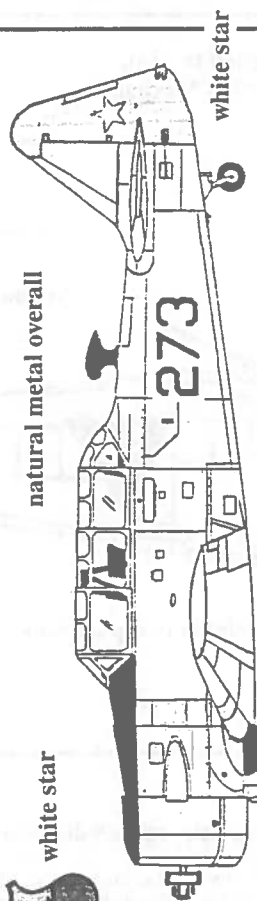


4. Brazilian AF, AT-6-G, 1471, of Esc. Aeronautica.

natural metal overall



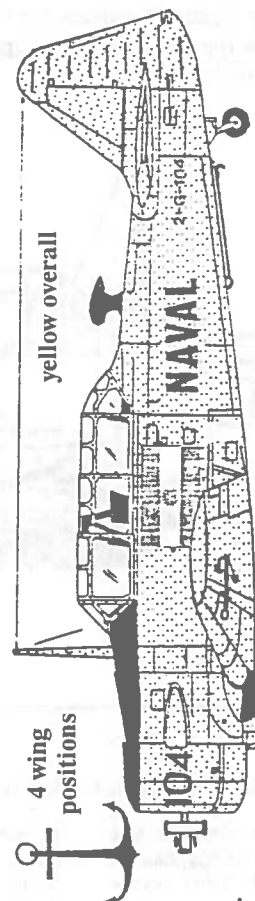
white star



5. Chilean AF, AT-6-G, 273. The national insignia carried on the upper left and lower right wing surfaces and a black 273 on the lower left and upper right surfaces.



yellow overall

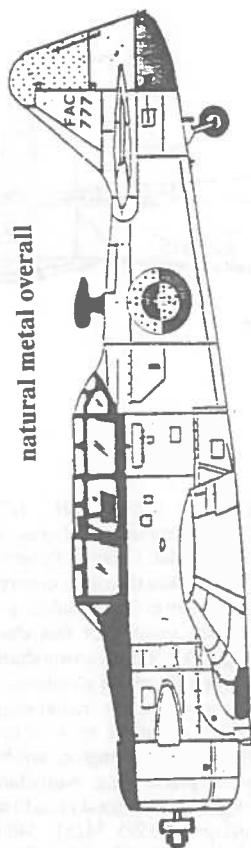


6. Armada de la Republica de Argentina, SNJ-5, 2-G-104, of the Escuadrilla de Propositos Generales detached to the aircraft carrier ARA Independencia, 1950. National flag carried below the cockpit on both sides.



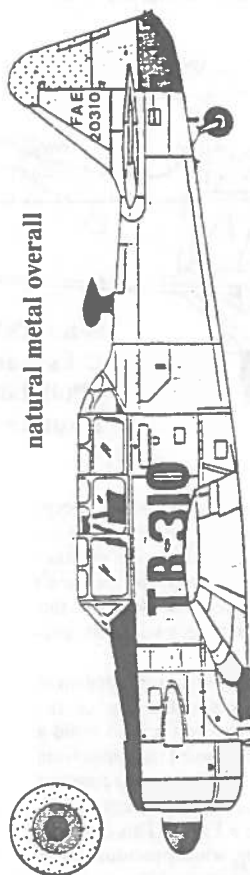
AT-6 LATINOS

natural metal overall



7. Colombia AF, AT-6-G, 777, at Marco F. Suarez AB, 1975. National insignia carried of upper left and lower right wing surfaces.

natural metal overall



8. Ecuadoran AF, AT-6-G, 20310, at the Air Force Museum at Mariscal Sucre AB, 1980. The national insignia carried on the upper left and lower right wing surfaces and a black FAE on the lower left and upper right wing surfaces.

☆ ☆ ☆ ☆ ☆ ☆ ☆ 7 white stars

natural metal overall

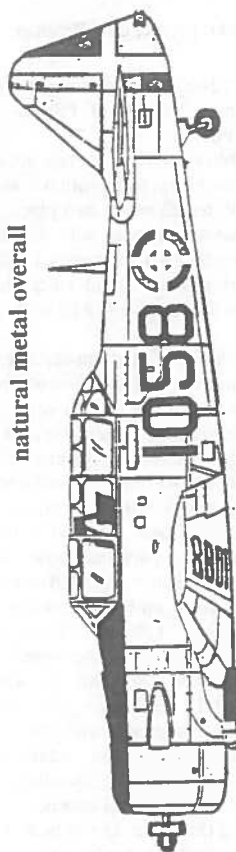


white E-71

9. Venezuelan AF, AT-6-G, E-71, at the Air Force Museum Maracay, 1980. The national insignia carried on the upper left and lower right wing surfaces and a black FAE on the lower left and upper right wing surfaces.

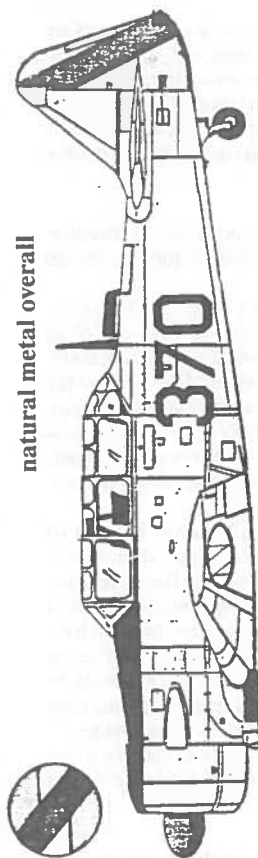


natural metal overall



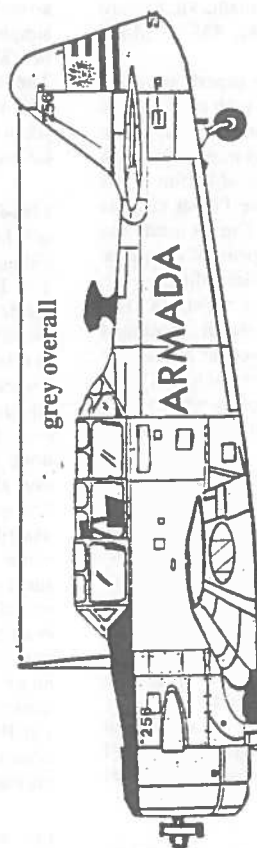
10. Dominican Republic AF, AT-6-G, 1058, at San Isidoro AB, 1972. The national insignia carried on the upper left and lower right wing surfaces and a black 1058 on the lower left and upper right wing surfaces.

natural metal overall



11. Uruguayan AF, AT-6G, 370, date and place unknown. A total of 50 were operated by the AF, some serving until the late 1970s.

grey overall



12. Uruguayan Navy, SNJ-5, 256, preserved at Naval Base Nacional. National insignia in 4 wing positions with anchor on upper left and lower right wing surfaces.



Jorge Delgado (SAFCH #862), PO Box 2207 Urdesa, Guayaquil, Ecuador

Fokker D.VIII, 1/48-scale, multi-media kit. Eduard Model Accessories, 28 Rijna 681, 435 02 Most-Sous, Czech Republic.

Eduard Models continues their superb series of 1/48-scale, injection-molded kits with two releases with strong small-air-forces appeal. The kit of the Fokker D.VIII makes a good first impression with a very attractive box-top painting of Stefan Stec's D.VIII '002' in its bold red/white Polish insignia and a striking personal insignia. The kit inside the box does not let you down. A sprue of light grey plastic provides all the main parts including engine, wheels, seat, machine guns, and all struts. The molding is crisp and the surface detail is subdued as is required to represent a ply-cover aircraft. A large fret (12 cm by 8 cm) of multi-etched brass provides interior and exterior components of exquisite detail, e.g. the spokes on the wire wheels have to be seen to be believed.

The 12-page instruction sheet uses exploded diagrams to show how all this plastic and brass go together to make what has to be the most detailed commercially-available, scale model in this scale. Decals are provided for six aircraft: four in German markings, one in Dutch markings (with orange discs), and Stec's '001' (not '002' of the box art). Decals are also included for the upper and lower lozenge fabric. All decals, printed by Propagteam, are of outstanding printing and quality.

Eduard's kit of the Fokker D.VIII is an beautiful addition to this excellent series of 1/48-scale WWI aircraft. Review kit provided by Eduard via WWI Acro.

Hansa-Brandenburg D.I, 1/48-scale, multi-media kit. Eduard Model Accessories, 28 Rijna 681, 435 02 Most-Sous, Czech Republic.

Eduard's kit of the Star-Strutter is every bit as good as their Fokker D.VIII review above. Most of the comments above concerning the high quality of the box art, the molding of the plastic parts, and the etched-bass parts apply equally well here so no further comments is necessary about these. The instruction sheet is just as complete (it has to be with all those parts), but now the marking schemes are shown in color. Decals are provided for 6 Austro-Hungarian aircraft. A welcome innovation is the inclusion of a decal sheet representing varnished plywood for application to the fuselage.

The unusual appearance of the Hansa-Brandenburg D.I Star-Strutter has been accurately captured by Eduard in this beautiful kit that is a fitting representative of the state of the art of mixed-media, scale-model kits. Review kit provided by Eduard via WWI Aero.

Jak-25RW Mandrake, 1/72-scale vacuform kit MS-20. Broplan, c/o Janusz Brozek, ul. Pilotow 10G/33, 80-460 Gdansk, Poland.

Our friend in Poland, Janusz Brozek, has just released a whole flock of new vacuumform kits: three jets and two biplanes. Since the kits are so similar in concept and quality, I'll review one in each category in detail and then be content with highlighting a few points of difference on the others. The Yak-25RW is a twin-jet, high-altitude, reconnaissance aircraft of surprisingly small size. The Broplan kit comes on three sheets of medium-thick white styrene. The molding is crisp, but the engraved panel lines will need a little cleaning up. All parts, including the main landing-gear struts and wheels and the fragile wing-tip wheels, appear to be usable. The canopy is clear and well molded. The instruction sheet consists of an exploded con-

struction diagram and a 3-view drawing. Decals are simple, consisting of 6 red stars and a pair of number '35' to apply to the bare-metal aircraft.

The Broplan kit of the Mandrake will look very nice next to your model of the U-2, but I don't think you'll want to display it next to your SR-71. Review kit provided by Broplan.

Lim-5M, 1/72-scale vacuform kit MS-25. Broplan, c/o Janusz Brozek, ul. Pilotow 10G/33, 80-460 Gdansk, Poland.

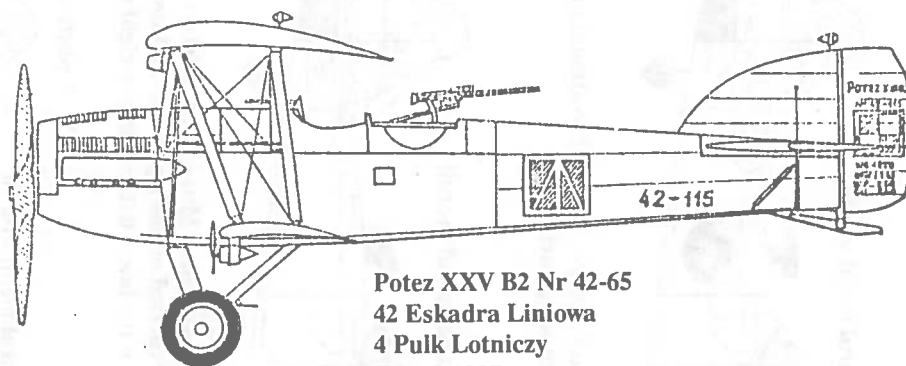
The Lim-5M is an aircraft most small-air-force modelers, particularly those with a Polish proclivity, have thought about modeling. All that is necessary is to modify any kit of MiG-17MF to the F version, enlarge the center sections of the wings, add dual main wheels, and, voila, a Lim-5M. However, I doubt that many modelers have actually done this. Now, Broplan has released a kit that will save all this pleasure and grief.

The quality of this kit is similar to the Broplan kit described above except for the engraved panel lines which do not need to be touched. The instruction sheet show an aircraft in a bare metal scheme. I would think that some of these aircraft would have been camouflaged, but I cannot find any references to such. No decals are provided. There should be no problem in finding Polish insignia, but the nose numbers may provide a little bit of a challenge.

The Broplan kit of the Lim-5M would make a nice addition to any collection of Polish jets. Review kit provided by Broplan.

Lim-6, 1/72-scale vacuform kit MS-26. Broplan, c/o Janusz Brozek, ul. Pilotow 10G/33, 80-460 Gdansk, Poland.

The Lim-6 would be externally indistinguishable from the Lim-5M were it not for the bullet-fairing at the base of the vertical fin of the Lim-6. The same



Potez XXV B2 Nr 42-65
42 Eskadra Liniowa
4 Pulk Lotniczy
Torun 1937

is true of the Broplan kits of these aircraft, except that the engraved panel lines on the Lim-6 are not as good as those of the kit of the Lim-5M; whether this is true only for the review kits, or is true for all production kits remains to be seen. However, this does indicate that you should check your kits carefully before buying.

Marrying the wings from an injection-molded kit of the MiG-17 to the vacuformed fuselage of the Broplan Lim-6 may be the easiest way to build a Lim-6bis. You don't have to discard the wings from the Lim-6 kit; they can be installed on the fuselage of the injection-molded kit (with suitable modifications to the nose) to make a Lim-6. This could be a fun exercise in kit bashing, while providing a way to use one of those Hasegawa or KP kits of the

MiG-17. Review kit provided by Broplan.

Potez XXV, 1/72-scale vacuform kit MS-21.
Broplan, c/o Janusz Brozek, ul. Pilotow 10G/33,
80-460 Gdansk, Poland.

Enough about "blow torches", let talk about some real airplanes. You know, thing with two wings and windmills. The Potez 25 was a two-place, biplane light-bomber that saw service with a number of countries between the two great wars. Luckily, one of these countries was Poland since this gave Broplan a reason for producing a kit of this attractive aircraft.

Molded on two sheets of medium-thickness white styrene, the parts are well delineated from the background and the surface detail is, in general, adequate; the rib detail (and there are a lot of ribs) is excellent, but the louvers on the engine cowlings are a little crude. As with most vacuform kits of biplanes, the wing and landing-gear struts, wheels, machine guns, etc. are best replaced by items obtained elsewhere. The 2-page instruction sheet included the usual serviceable exploded construction view, a rigging diagram, and side-view drawings of three Polish machines. The decals sheet provides national insignia of two types: the large size used from 1929 to 1934 and the small size which was placed asymmetrically on the wings between 1934 and 1939. Evidence numbers and the extensive French-type inscription for the rudder are also included as are four different squadron insignia never before available on decal sheets.

The Broplan kit if the Potez 25 will be a challenge to build, but the resulting model will be a much needed addition to any collection of aircraft of the 1930s. Review kit was provided by Broplan.

[Editor's note: Anyone want to do a SAFO article on small-air-force Potez 25s?]

Potez XXV (Bristol Jupiter VII), 1/72-scale vacuform kit MS-22. Broplan, c/o Janusz Brozek, ul. Pilotow 10G/33, 80-460 Gdansk, Poland.

As far I know, Poland was the only country to fit a Bristol Jupiter to the Potez 25 to produce a unique-looking radial-engine version of this ubiquitous aircraft. The Broplan kit of this version shares most of the parts with their kit of the standard Potez 25 except for the forward fuselage, radial engine, and spinnered propeller. As usual, most of the small parts, especially the Jupiter engine, are best obtained from other places (e.g. Aeroclub). The finished model will look very good in its three-tone splinter camouflage (FS595 34151, 34097, and 30118) over light blue (FS595 35500). Review kit provided by Broplan.

GRUPO AEREO DE INSTRUCCION PARAGUAYAN AIR FORCE

Antonio Luis Sapienza

The Grupo Aereo de Instruccion or GAI (Instruction Air Group) was created on 20 January 1992 when the Grupo Aereo de Entrenamiento (GAE - Training Air Group) changed its name. The GAE was a part of the Grupo Aereo de Entrenamiento y Transporte or GAET which was founded on 20 January 1966 and dissolved in 1988.

During the GAET first years, FAP Cadets received primary training on Brazilian-built Neiva 56B Paulistinhas, basic training on the Fairchild PT-3FG (the Brazilian-built version of the PT-19), and advanced training on the NA T-6 Texan. In the early seventies, the Neiva 56Bs and PT-3FGs were replaced by another Brazilian-built plane, the Fokker T-21 (S.11 built under license). Because of several fatal accidents, the T-21s were not very popular with the cadets and instructors and they were soon replaced by Aerotec T-23 Uirapurus. During the eighties, the training program was carried out on the T-23s, the Neiva T-25 Universal, and the NA T-6s, in the Primary, Basic, and Advanced roles respectively. All the T-25s and T-6s were retired from the training programs in 1990, although the T-23 fleet continued in active service. These aircraft were replaced by the Chilean-built ENAER ECH51A/B T-35 Pillan.

The GAI's main duty is the training of FAP military pilots. It is currently located in Hangers Nos. 1 and 2 at NuGuazu AFB near Asuncion. The FAP acquired twelve T-35 Pillan for the GAI between October 1992 and May 1993. They were bought directly from the factory in Chile and were flown by Paraguayan pilots from Santiago to Asuncion. Several crews received training at the ENAER factory. Most of these were Tucano pilots of the Grupo Aerotactico (GAT). On 27 November 1992, T-35, s/n 0111, was lost in a fatal accident at NuGuazu AFB (the author, who was 200 meters of the crash site, witnessed this accident). Killed in this accident were 1st. Lt. PAM Luis A. Fernandez and 1st. Lt. PAM Jesus Cespedes (the son of the FAP Commander, Gen. Jose Cespedes). This aircraft was soon replaced by another one taken from FACH inventory.

The GAI fleet currently consists of:

- 6 Aerotec A.122/T23 Uirapuru (out of 14 originally acquired in 1975 and 1986) serialised: 0010 (c/n 048), 0011 (c/n 054), 0012 (c/n 056), 0014 (c/n 058), 0015 (c/n 061), and 0016 (c/n 062). 12 ENAER ECH51A/B T35 Pillan, serialised: 0101 (T35A c/n 215), 0102 (T-35A c/n 216), 0103 (T-35A c/n 217), 0104 (T-35A c/n 218), 0105 (T-35A c/n 219), 0106 (T-35A c/n 220), 0107 (T-35A c/n 221), 0108 (T-35A c/n 222), 0109 (T-35B c/n 211), 0110 (T-35B c/n 212), 0111 (T-35B c/n 213), second 0110 (T-35B c/n 196), and 0112 (T-35B c/n 214).

- 2 North American T6D Texan (out of a total of 43 aircraft acquired between 1943 and 1980, 3 through the Lend-Lease Program, 30 donated by Brazil and 10 by South Africa) serialised: "1" (c/n 9A063, ex-South African Air Force 7700, ex-Grupo Aereo de Entrenamiento 0119) and "2" (c/n A053, exSAAF. 7689, ex-GAE 0123), which are in flying condition, not for training, but for aerobatic purposes only. These Texans are painted in a very colorful color scheme, similar to the Brazilian Esquadilha da Fumaca's T6s. They were painted like the FAP AraSunu (Guarani name meaning The Sound of Thunder) Aerobatic Team T-6s of the seventies. (This author promises a full article on this team after finishing the FAP series on Groups).

The T-23s belong to the Aravers Squadron (Guarani name meaning The Brightness of Thunder), while the T-35s belong to the Fenix (Phoenix) Squadron. This Squadron is divided into three Escuadrillas (small squadrons or Wings): Antares (1st Wing), Pantera (2nd Wing), and Halcon (3rd Wing).

There are plans to transfer the GAI to the Concepcion AFB in the Northern region of Paraguay, but this project will depend on the budget given by the government to the FAP.

A FAP cadet starts flying in the T-23s, and during two years accumulates the necessary hours in primary and basic training to graduate as a Sub Lieutenant PAM. (Piloto Aviador Militar, Military Aviator Pilot). After that, the new officer continue training in the T-35 for another year and is then detailed either to the GATE (Grupo Aereo de Transporte Especial), the GAH (Grupo Aereo de Helicopteros), or the GAT (Grupo Aerotactico). The last step in the FAP chain is the GTA (Grupo de Transporte Aereo) which accepts pilots from the GATE, and, sometimes, pilots from other groups, according to its needs.

Color Schemes

(a) Aerotec T-23: The first eight T-23 acquired from Brazil, in 1975, used an overall natural metal finish. The wing tips were red and Paraguayan roundels were painted on the left wing (above) and right wing (below). The serials were painted in black square-style on the left wing (below) and right wing (above), as well as on both sides of the fuselage. The Paraguayan flag was painted on the rudder with a yellow star on the white stripe. A black antiglare panel was painted on the engine cowling. These aircraft were originally serialised 0041 (c/n 096), 0043 (c/n 097, later re-serialised 0003), 0045 (c/n 098, later 0005), 0047 (c/n 099, later 0007), 0049 (c/n 100, later 0009), 0051 (c/n 101, later 0001), 0053 (c/n 102, later 0002), and 0055 (c/n 103). They were retired from active service in the late eighties.

The second six T-23, which are still in service in the GAI have a different color scheme. The fuselage is painted in matt light grey (Humbrol 147/FS36495) with a matt black antiglare panel on the engine cowling. The wings and the horizontal stabilizers and elevators are orange. The wing tips, as well as the spinner, are red. The roundel and serial positions are the same as the above mentioned aircraft.

(b) ENAER T-35: All T-35s are painted in overall gloss white (Humbrol 22/FS17875). The thick stripe along the fuselage is gloss red (Humbrol 19) while the thin one is gloss blue (Humbrol 14). The title FUERZA AEREA PARAGUAYA is painted in black letters right under the cockpit. The s/n is painted aft of the Paraguayan roundel on the fuselage in black square-style numbers. The last two digits of the s/n are also painted on the front fuselage under the red strip. The wing tips are decorated with red triangles, and, therefore, the roundels are painted at the mid-wing position. The spinner is also matt black. The Paraguayan flag is painted on the rudder. No yellow stars have been painted in the white stripes so far. The cockpit edge is also painted in red.

Emblems

(a) GAI (old): All titles and edges in black. A brown eagle feeding its eaglelets with a pilot's brevet. The eagle stands on a Paraguayan flag with a big yellow star. The background is light

blue.

(b) GAI (new): The upper part has the pilot's yellow brevet on blue background with black initials FAP and GAI. In the lower part, a brown eagle with the Paraguayan flag as background.

(c) Aravera Sq. (T-23): Titles are yellow on black background. In the center of the emblem, a white head of an eagle. This emblem is divided by a yellow lightning crossed by four black aircraft in formation. The left side, representing "night" with the moon and stars in white on dark blue background; the right side, representing "day" with yellow sun and white clouds on light blue background.

(d) Fenix Sq. (T-35): Black edge; light blue background. The center is dominated by a brown eagle holding the earth with a huge yellow map of Paraguay with a red-white-blue star (representing the city of Asuncion) from which a T35 leaves. Title T35 Pillan in black and FENIX in yellow. The eagle has a Paraguayan flag in its beak.

Acknowledgement

The author would like to thank all the GAI pilots, cadets, and ground crews for the information provided and for the permission to take pictures of their planes. Special thanks to Col. DEM Aurelio Aquino, Commander for the GAI, and 1st PAM Diego Galvan, T-23/T-35 Instructor.

Photo Captions

(All photos by author unless otherwise noted. Photos on

pages 135 and 136.))

a. A trio of Aerotec T-23 Uirapuru of the GAI/FAP at Nu-Guazu AFB in October 1992.

b. A pair of FAP cadets preparing T-23, s/n 0010, for flight at Nu-Guazu AFB, October 1993.

c-e. ENAER T-35 Pillan, s/n 0110 & 0103, of the GAI/FAP in flight near Asuncion in October 1993. (Horacio Decoud via author)

f-g. A lineup of GAI/PAF Pillans, s/n 0110 to 0106, at Nu-Guazu AFB in October 1993.

h. North American T-6G Texan. '1', of the GAI/FAP at Nu-Guazu, November 1993. Aircraft is white with red 'flash', red/white/blue (from front) cowl, yellow wings with white tips and blue trim. The cockpit frames are blue as is the top of the rear fuselage and the leading edges of the vertical and horizontal tails. The starboard horizontal tail surface is white and red. The rudder carries the Paraguayan colors of red/white/blue (from top) without a yellow star. The antiglare panel is matt black and the wheel hubs are white. The landing gear doors are blue and the undersurface of the starboard wing is red and white. [Editor's note: The color of the port horizontal tail surface and those of the undersurface of the port wing are not visible in the photos provided by the author. Perhaps he will provide a multi-view drawing of this a/c for publication in a future issue of SAFO.]

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a



b



c



d

HUNGARIAN YAKS IN WWII

Pascal Faucard

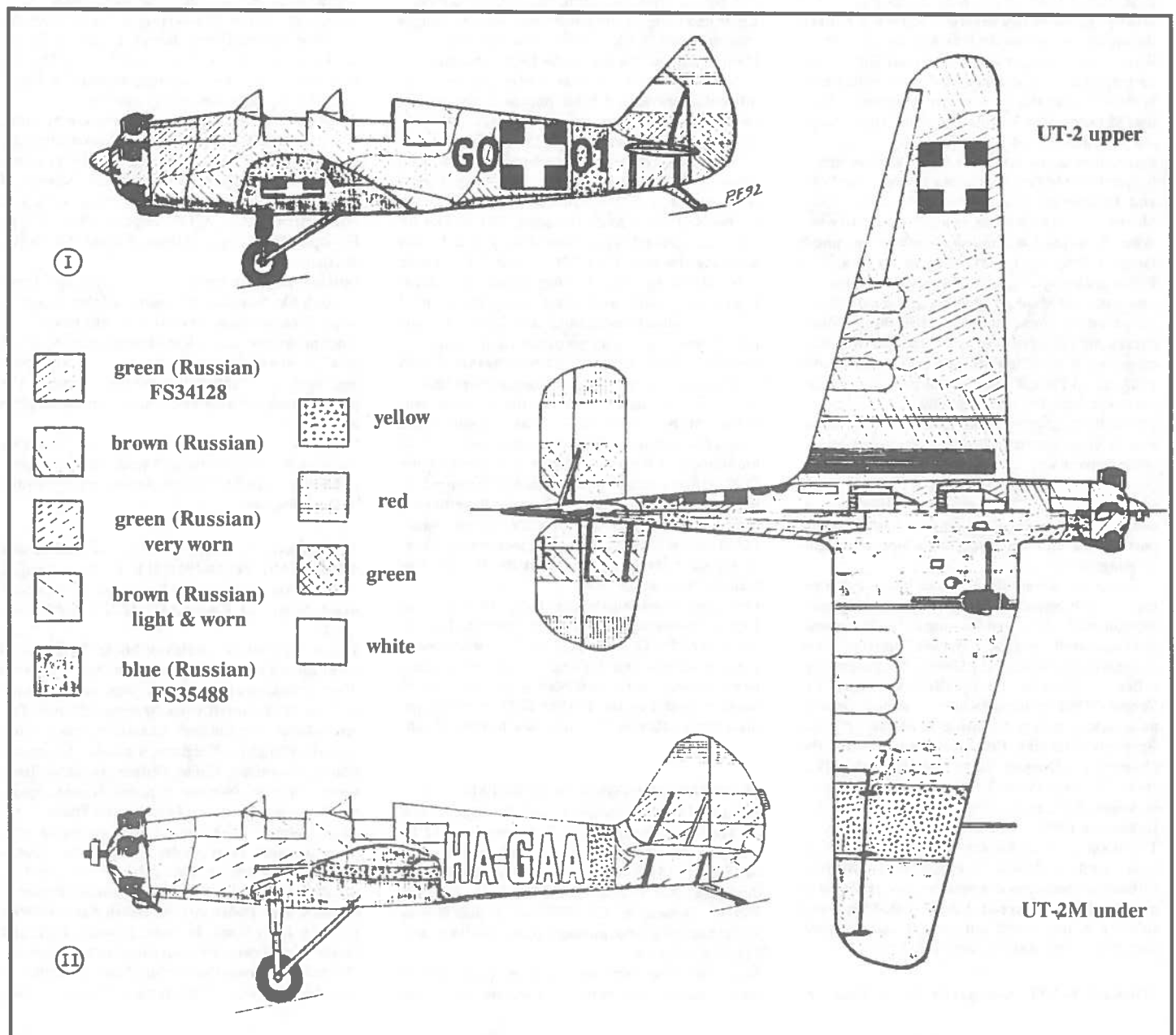
I. This Yakolev UT-2, captured on a Soviet airfield in 1942, kept its Soviet camouflage of green/brown. The Red Stars were overpainted with Hungarian insignia and both sides of the horizontal and vertical tail surfaces are in Hungarian colors. Yellow, Eastern-Front markings (under the wing tips and fuselage band) are carried. Propeller spinner is green and code GO+01 is black. Reference: Photo in "Fejezetek a Magyar Katonai Repules Tortenetebol".

II. Yakolev UT-2M in civilian markings. Yellow fuselage and wing bands. (I'm not positive if the bands carried over onto the upper surface of the wings. Tail colors are similar to the UT-2 above. White code HA-GAA. No Propeller spinner. Reference: Color side-view drawing in TBU #107. This Polish Profile is highly recommended for more information on the UT series.

Kits: (a) UT-2M by "A.C.". 1/72-scale vacuform on a sheet of thin (too thin 0.5 mm) plastic with 25 parts. Accurate in scale, but some of the parts are useless, e.g. undercarriage legs, wheels, propeller, motor, etc.). The instruction sheet is good with schemes for 3 Soviet a/c, but the decal sheet consists of only 6 Red Stars. (b) UT-2 by unknown manufacturer, injection molded with 24 parts. Some parts should be improved upon (motor, undercarriage, aerial mast), but, with a little work, the result can be a pretty, little model. These kits were provided by my Finnish friend Tapio Huttunen (SAFCH #1169). Greetings Tapio.

Additional information would be welcome.

Pascal Faucard (SAFCH #571), 26 Avenue Raoul Aladenize, 18500 Mehun sur Yevre, France.



16 (39-a) ESKADRA WYWIADOWCZA 1919-1920, Tomasz Jan Kopanski. 132 pages, 17 cm by 24 cm. Wydawnictwo KWN, ul. Zyrardowska 26, 03-021 Warszawa, Poland. Available in both hardbound and softbound versions.

This is the first of a series that ultimately will cover all the Polish squadrons that participated in the wars that immediately followed Polish independence in 1918. If this first volume is any indication, Tomasz Kopanski (SAFCH #958) will have produced an outstanding historical study of Polish aviation history. During the long years of Communist domination, discussion of this topic was prohibited. Therefore, it is surprising that so much information and photos from this period have survived.

This book covers the formation of the 39th (Breguet) Squadron in France, its arrival in Warsaw on 26 April 1919, and its subsequent participation in the Polish-Ukrainian campaign. The squadron was renumbered the 16th Squadron on 13 April 1920 and, when the Polish offensive against the Bolsheviks began on 25 April, the squadron participated in the advance that quickly took them all the way to Kiev. After a period of activity against enemy ships on the Dnieper River, the squadron covered the Polish retreat, arriving in Warsaw on 5 August with no aircraft left. It then participated in the defence of Warsaw with planes borrowed from the Central Air Workshop. After the "Miracle on the Vistula", it pursued the retreating Bolshevik Army, participating in its final destruction at the Battle on the River Niemen in September. Military operations between the Poles and Bolsheviks ceased on 18 October 1920. Meanwhile, on 8 October, in a subterfuge to wrest Wilno from the Lithuanians, Polish troops under General Zeligowski, pretending to revolt against Polish authority, captured Wilno and created the ersatz state of Middle Lithuania. 16 Squadron participated in these actions with their Polish chessboards painted over with Middle Lithuanian markings. A cease fire, declared on 30 November 1920, ended Poland's military defence of its independence until 1 September 1939.

The author describes 16th Squadron's participation in these events in 88 pages of Polish text, 6 informative maps, 13 pages of tables including a 10-page listing of "Known Combat Flight of the 16 (39th) Squadron", 74 photos (with English captions) all of personnel and aircraft actually taking part in the events described, and a 9-page English-language summary.

Color art work consists of 7 color side-view drawings of 16th Squadron Breguet 14s with English captions and a full-page drawing of the "Craowian girl" squadron insignia. However, pride of place belongs to four beautiful paintings illustrating significant events in the squadron's history: (1) Breguet '2788' taking off while the gunner fires on an attacking group of Bolshevik calvary. (2) two Breguets attacking Bolshevik gunboats on the Dnieper, (3) Breguet '10.44' fighting with 3 Bolshevik Nieuports near Warsaw, and (4) a Breguet in Middle Lithuanian markings in combat with a Lithuanian LVG C.VI and two Fokker D.VIIs.

This book is a must for any student of Polish aviation. And, a Polish Breguet 14 in Middle Lithuanian markings is a must in any collection of models of Polish aircraft. I suspect that the other volumes in this series will provide just as many surprises as this initial volume provides.

FOKKER D-XXI, Monograph No. 1: Dutch &

Danish Service, Warren Eberspacher. 48 pages, 8.5 inch by 11 inch. Phalanx Publishing Co., 1051 Marie Ave., St. Paul, MN 55118, USA. Softbound. \$12.95. I didn't think much more could be said about this well-known subject, but Warren Eberspacher has found a fresh new approach. Warren is the founder of the Historical Aircraft Corporation which develops "authentic scaled replica aircraft for the growing worldwide amateur-built sport aircraft market", and with his engineering and aircraft design background he approaches the subject from a unique point of view. This results in an exciting new monograph.

The normal topics are still covered: "Design Genealogy", "Basic Construction", "Pre-War Production", "Performance", "Operational History", "Design Details", and "Color Schemes". It is in the penultimate and longest section (pages 15 through 48) that the authors makes his most important contributions. Differences among the prototype, Dutch Operational Model, and Danish Operational Model are discussed in detail with the support of "engineering" drawings including cockpit interiors and instrument faces. Many of these differences would be visible on a 1/72-scale model, e.g. it had escaped my notice that the cowl bulges missing on all D.XXI kits were carried only on the Danish version and not on the Dutch machines.

Visually, the book is a gem. There are two magnificently-reproduced color photos of the replica built by Fokker (how nice it is to see the word 'replica' correctly used) and 18 well-reproduced b&w photos. There are three 2-page, 5-view scale drawings, 12 drawings of details, five 2-page, 5-view color drawings (FD-322 prototype, 215 in Dutch roundels, 237 in Dutch triangles, J-41 in Danish silver, & J-50 in Danish camouflage), and 4 color side-view drawings (214, 221, J-42, & J-47). These color drawing need further comment: Berol Prismacolor pencils were used giving the printed colors a peculiarly texture that is at first disconcerting. However, after you get used to it, it seems very effective. Colors are specified both by their FS595 equivalents and by the Berol Prismacolor shade.

As much as I admire this book, there is one comment that the authors makes that will raise more than a few eyebrows. "With the advantage of 20-20 hindsight and the very effective use made of the D.21 in the hands of both Dutch and Finnish pilots, it is speculated that the D.21 would have been a serious opponent for Japanese Zeros and Oscars out in the Dutch East Indies had they been present in any quantity." I wonder what the Buffalo historian will say about this.

I am eagerly awaiting the publication of the second part of this monograph which will cover the Finnish versions of the D.XXI, some of which were extensively modified. The drawings will probably upset more than one sacred cow. My advice is not to build another model of the Fokker D.21 until you get these books. Review copy provided by the publisher.

MILITARY TRANSPORTS IN DETAIL, Vol. 1: Douglas C-124, Fairchild C-119, Transall C-160, De Havilland Canada DHC-5, Antonov An-12, by Richard Starzak & Nancy Staehr. 80 pages, 8.5 inch by 11 inch; 113 photos (7 in color), and 50 side-view drawings. Air Transport Publications, PO Box 586073, Oceanside, CA 92058-6073. \$12.00 plus \$2.50 handling and postage (CA residents add \$1.00 for sales tax).

Just when you think you've seen every way of presenting aviation material, someone comes up

with a new twist. This book consists of five mini-monographs of identical format bound into a single volume. Furthermore, the subject is the somewhat-neglected area of military transports.

The authors have gone out of their way to provide information on exotic users. As an example of the format and contents, the "chapter" on the Buffalo starts with a two-page "Capsule History" including "...the Buffalo was purchased by Brazil (24) and Peru (16)..." and "The original list of user countries was expanded to include: Chile, Cameroon, Ecuador, Egypt, Ethiopia, Kenya, Mauritania, Mexico, Oman, Sudan, Tanzania, Togo, United Arab Emirate, Zaire, and Zambia." The "Representative Users" section lists 2 Canadian units and 5 units from other countries. "Marking Information" gives an account of markings and color schemes common to most users. "Configuration Summary" gives technical data and summarizes the difference between various subtypes. Two drawings show the cockpit layout. The entry under "Available Model Kits" is "None". There are nine "References" listed. The "Walk-Around" consists of 20 close-up photos. The "Marking Schemes" consist of 16 side-view drawings including a/c in the markings of the US Army & Navy, Canada, Ecuador, Sudan, Oman, Kenya, Egypt (2), Brazil, UAE, Mexico, Togo, Zaire, and the UN. There is also one plan-view drawings showing a representative top-side camouflage pattern.

All other "chapters" follow exactly the same format, so it is sufficient to mention only the small air forces represented in the drawings: C-119 (France, Canada, UN, Belgium, China, Jordan, Norway, & Italy). Transall (France, West Germany, Turkey, & South Africa). An-12 (UN, Algeria, China, Egypt, Ethiopia, India, Iraq, Guinea, Poland, Sri Lanka, & Ghana).

Besides the heavy small-air-force coverage, I particularly liked the fact the source of the photos on which each drawings was based is fully referenced. Since no review is complete without at least one "nit pick", I implore the artist to reconsider the "shading" used to indicate colors on the drawings. The present choice of wavy lines and bold patterns gives me vertigo.

"Military Transports in Detail" can be highly recommend to a enthusiasts and modelers interested in the small air forces. Review copy provided by the publisher.

The Reference Sources Guide to MILITARY AEROPLANES 1914-1918, B.E. Ketley. 301 pages, A-4 format. Hikoki Publications, 16 Newport Road, Aldershot, England GU12 4PB. Softbound. £29.95.

This is the first in a series of books "intended to cover all military aircraft until the Second World War". This series gets off to a great start with a list of "over 1200 aircraft types by some 250 manufacturers from 19 countries". Countries covered are: Austria-Hungary, Belgium, Canada, Denmark, France, Germany, Great Britain, Holland, Italy, Japan, Mexico, Norway, Poland, Russia, Spain, Sweden, Switzerland, and the United States.

As an example of the information provided, consider the sole entry under Poland: "SZ Quad-ruplanes: "AP March 1962 (plan)**"; Polish A/C; and Polish Wings". AP is identified as Air Pictorial, Monthly, UK; Polish A/C is "Polish Aircraft 1893-1939" by Jerzy Cynk, Putnam, London 1971; and Polish Wings" cannot be not found in the Glossary. The 'stars' indicate the "range of information contained within", with ** referring to "Multiple views,

or non-72nd scale plan, or colour 3-view." This entry, chosen at random, highlights the most awkward part of this book: The Glossary is divided into three sections: "English Language Books", "Books in Other Languages", and "Magazines and Periodicals". Unless the reader is familiar with the reference, he/she may have to consult all three sections to make an identification. I hope the author will combine these into one Glossary for future volumes.

A separate chapter provides references to books and articles on "Camouflage and Markings" listed by country. A final section contains 50 side-view, tone drawings (with an occasional plan view) with full color information and identification of the sources on which the drawings were based.

"Military Aeroplane 1914-1918" is a most impressive publication. It is possibly the best single source for finding references to WWI a/c. However, it has two flaws that I hope the author will correct in future volumes of this series: (1) To find the markings of an a/c used by a country other than its country of origin, you must look under the particular a/c (e.g. under Nieuport, Russia & Belgium are listed, but not Romania). It would be useful if there was a section listing all non-indigenous a/c used by each country. The second flaw is much more serious. SAFO is not one of the sources consulted. In order to correct this omission in future volumes, SAFO is now being sent to Mr. Kettle.

Review copy provided by the publisher.

WW2 AIRCRAFT KITS IN PLASTIC, John Burns. Kit Collector's Clearinghouse Publications, 3213 Hardy Dr., Edmonds, OK 73013, USA. 270 pages, 8.5 inch by 11 inch, soft cover, spiral bound. \$25 USA/Canada and \$30 elsewhere surface postage included.

Most SAFO readers are probably aware of the Kit Collector's Clearinghouse, their monthly newsletter, and their Collector's Value Guide. (The 1994 edition, with 24,238 kits listed, should be out by the time you read this. Cost \$30 USA and \$35 elsewhere.) Less well known are the books in their "In Plastic" series. The most recent in this series is Volume V, "WW2 Aircraft in Plastic", which was published in 1993.

With this book, John Burns (SAFCH #508) undertook the monumental task of listing every kit of a WW2 military a/c produced (or planned, but never released). There are no prices listed, but each kit is identified as CA (currently available), NP (not in production), HF (hard to find), and so on down to IM (impossible to find).

The book is divided into two sections: The "WW2 Company List" is an alphabetical listing of manufacturers of WW2-era a/c with each manufacturer followed by a listing of a/c. With each a/c are the names of companies that have issued a kit of that a/c. The second, and largest, part of the book (230 pages) is a listing of kits arranged alphabetically by company. Given for each kit are the catalog number, scale, availability, and notes about contents (e.g. w/d with decals, w/mp with metal parts, etc.) and information such as when the kit was first released and any earlier reincarnations of the kit. For example, the Academy Wildcat was "Issued in 1987. Original Academy mold based on the Frog F242F kit with some improvements."

If you're interested in finding a kit of a particular a/c, you first look in the "Company List" to find who has produced a kit and then in the "Kit List" to find out all about the kit. If you may want to know more about a particular kit, you go directly to the "Kit List" to find out if the molds are new or if the kit is just a reissue of a kit you may already have. The "Kit

List" also includes a short history of each company. This is particularly helpful in trying to make sense of all the companies forming and reforming is eastern Europe. For example, I have a kit of the F-82F Twin Mustang from a Russian company with an unprintable name (no it not obscene, in Cyrillic). The only information I can decipher is the number F405. Since this looks like a Frog number and the Frog molds are kicking around in Russia, I looked up F405 under Frog and found it to be a F-82F/G that was never released, and was planned by Novo as 78146 but also never released. Now it seems that somebody has finally released it.

The above saga indicates the major problem with this kind of listing. It's out of date the day it is published. Updating this information on other than a computer format is a nearly impossible job. Nevertheless, if you're a kit collector, or have a large collection of kits you're "going to build someday", this book will save you money (and embarrassment) by identify "new" kits that duplicate kits you already have under a different label. Review copy provided by the publisher.

LOCKHEED P2V NEPTUNE, Jorge F. Nunez Padin. Serie Aeronaval No.7. Available from the author at C.C. 117, Suc. 12 B, 1421 Capital Federal, Argentina. Softbound, 32 pages.

Our friend from "down Argentine way", Jorge Nunez SAFCH #395, continues to release, on schedule, more volumes in his "Series Aeronaval". The format remains unchanged: 16 cm by 22.5 cm, almost sensually slick covers, and lots of photos of a/c, all in Argentine markings.

The Neptune book is divided into five chapters: (1) Historia, (2) Operaciones en Malvinas, (3) Técnica, (4) Identificación, and (5) Colores & Insignias. Included in these chapters are 5 color photos, 34 b&w photos, histories of individual a/c, and 4 side-view drawings.

MARTIN 139WAN, Jorge F. Nunez Padin. Serie Aeronaval No.8. Available from the author at C.C. 117, Suc. 12 B, 1421 Capital Federal, Argentina. Softbound, 24 pages.

In this, his most recent volume, Jorge enters, for the first time, the pre-WWII era. The export version of the Martin B-10 was used in Argentina from 1936 until 1949. The format of this volume remains the same as for those volumes on post-WWII a/c except there are, understandably, no color photos. The chapters are: (1) Historia, (2) Técnica, (3) Identificación, and Insignias. Included are 22 b&w photos, histories of individual a/c, and 4 side- and one plan-view drawings.

[Editor's note: I encourage Jorge to consider providing English-language translations of this series. Nothing complicated, just a Xeroxed text without any photos or drawings which could be purchased for a small extra charge when buying these books. This should greatly increase the sale of these books in English speaking countries.]

THERE GOES A WACO, Joe Balmer and Ken Davis, 76 pages, 8.5 in. by 11 in., softbound, 38 b/w photos, 16 sketches, Little Otter Publications, 200 S. Wilson Road, Troy, Ohio 453739443, available from Zenith Books, \$14.95.

This winner of the Ohio Association of Historical Societies and Museums gold award is a good general history of the WACO company, its directors, and construction of the aircraft in Troy, Ohio. Photos of its basic models are included.

Unfortunately, it is a disappointment for SAFO purposes. Other than a brief mention of use by China and sales to "several Central and South American nations", no details are given. My limited

sources indicate use by Argentina (EQC6), Brazil (CPF5, CSO, CJC, C8), Canada (CG4A, AQC6), Cuba (S3HDA/D7 "fighter"), El Salvador (F2), Britain (C72, CG4A), Guatemala (PF7, Model D "fighter"), Honduras (Model F), Mexico (Model D?), Nicaragua (WHD "fighter"), Norway-exile (SRE), Sweden (UIC4, ZQC6), Uruguay (D7), Venezuela (F7). The authors list factory representatives in 24 countries. Likewise, only one silhouette 3view and a photo of the prop being mounted on an engine are presented of the 600 UPF7/PT11 WWII trainers. Of the CG3A, CG4A, CG13A, and CG15A WWII gliders, two photos of the CG-4A are included.

The authors doubtless had access to much more information, as they state all WACO records reside in the Wright State University Library, Dayton, Ohio. This reviewer would appreciate any additional information on the use of these aircraft by wartime air forces.

Paul W. Dutram (SAFCH #880), 12 Morrill Ave., Waterville, ME 04901, USA.

ON WINGS OF EAGLES: South Africa's Military Aviation History, Dave Becker, 288 pages, hardbound, 21 cm x 30 cm, 191 b/w and 70 color photos. WalkerRamus Trading Co. SA (Pty) Ltd., PO Box 2920, Durban 4000, RSA. No publication date given. Price 100.00 Rands.

This book describes the development of the South African Air Force and its predecessors from the first balloon operations in 1885 up to the organization and equipment of 1991. The narrative, which is in chronological order, is well written and describes the different phases of the history in considerable detail. The operations of WWII are naturally given special prominence, but there is also much interesting information about the formative years of the SAAF, as well as the "bush war" of the 1970s and 1980s.

The photo selection is very good throughout, and includes many rare and unusual subjects, covering virtually every type of aircraft operated by the SAAF over the years. The quality is also generally very good, although many of the pictures are rather small.

Even though this is a good book, the overall impression is somewhat spoiled by the fact that every second page is a fullpage advertisement for anything from strike helicopters to skin care products! The actual number of pages is therefore in effect halved. Despite this, this is without doubt the best "onestop" source on the SAAF.

Leif Hellstrom (SAFCH #786), Servitutsvagen 3, S145 59 Norsborg, Sweden

DIE ANDERE DEUTSCHE LUFTWAFFE, Wilfried Kopenhagen, 176 pages, hardbound, 24.5 cm x 27.5 cm, 178 b/w and 35 color photos. Motorbuch Verlag, Postfach 10 37 43, D70032 Stuttgart, Germany. 2nd edition 1994. German text. Price £25.95 from Midland Counties, England.

This is the story of the East German Air Force from formation in 1952 to disbandment in 1990, written by a former East German Air Force officer and military journalist. The account is very detailed and is supported by numerous tables and organization charts. More than half the book is devoted to reviews of individual units and aircraft types. There is a complete table with units, serials, delivery dates, and construction numbers of all aircraft in service on 30 September 1990, and a similar table of all aircraft lost or withdrawn from service from 1972 onwards.

The German text is, of course, a drawback for most readers, but this is really an excellent reference

even if your knowledge of German is virtually non-existent. Also, the photo selection is very good. Leif Hellstrom (SAFCH #786), Servitutsvagen 3, S145 59 Norsborg, Sweden

AFRICAN MILITARY AVIATION, Winston A. Brent, 288 pages, softbound, 21 cm x 15 cm, 293 b/w and 34 color photos. Freeworld Publications, PO Box 6260, Nelspruit 1200, RSA. Published 1994. Price 80.00 Rands including surface p&p. This labor of love is modelled on the Military Aviation series published by Midland Counties 1015

years ago, and follows their format closely. Each country is given a short introduction, followed by a listing of all the individual aircraft known to have been operated by its military and paramilitary forces. Whenever possible, the list shows the serial number, type, construction number, delivery date and fate or other remarks. Each section is usually accompanied by a number of photos, mostly of fairly good quality.

The level of the coverage varies greatly from country to country. Not surprisingly, the list for South Africa appears very complete, while those for Egypt, Libya, and Somalia are more sketchy. Defunct air forces such as Katanga and Biafra are

also included. In the cases of Egypt, Rhodesia/Zimbabwe, and South Africa, only the period from about 1955/60 onwards has been covered. In some cases, the layout and editing is unfortunately not very good, resulting in certain lists being rather difficult to read.

All in all, this is a very useful reference to a sadly neglected topic, and will no doubt be of great interest to many SAFO readers.

Leif Hellstrom (SAFCH #786), Servitutsvagen 3, S145 59 Norsborg, Sweden

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PLIENO SPARNAI, Lithuanian Technical Museum, Veiberiu 132, 3010 Kaunas, Lithuania. 100 pages, A-4 format. Four-page English summary.

This is the second issue of this annual publication of the Lithuanian Technical Museum, and what a gem it is. If you want to learn about Lithuanian aviation past and present, this is the magazine for you. I'm trying to find out information on price, etc., but, until then, wet your appetite on the contents of this issue.

The cover is a color photo of a Lithuanian L-39 Albatros; on the back of the front cover there are more color photos of current Lithuanian a/c (Mi-8, L-410, & An-2). Articles include: "Lithuanian Military Aviation in the War for Independence" 8 pages including 7 maps, 4 photos of a/c, 24 photos of pilots, and 4 side-view drawings of a/c in Lithuanian insignia (LVG C.VI, ALB C.II, HALB C.V, & ALB J.II). "The last Years of Military Aviation and 'National Squadron of Soviet Lithuania'" 7 pages including 3 photos. "Fokker D.VII in Lithuania" 10 pages including 9 photos, 7 color side-view drawings and 5 plan-view drawings, and 3 pages of scale drawings including Puma-powered version built in 1928. The D.VII was used for pilot training at least to 1937. "Gliding in Occupied Lithuania" 14 pages. "The First Dobi" 5 pages including 5 photos and 2 pages of scale drawings of the Dobi-1. "Percival Q6: First Aircraft of Lithuanian Air Lines" 9 pages including 15 photos and 2 pages of scale drawings of LY-SOA and LY-SOB. "Our First Sports Glider" 10 pages with 11 photos and scale drawings of LY-SAKALAS and LY-ZAIBAS. Twelve pages of personal accounts including "My Escape from the Bolsheviks"

and "How I took part on a Coup of State" with photos of an Ansaldo A.120 and a group of 9 Dewoitine D 501s all in Lithuanian markings and an ex-Lithuanian Piper Cub in Luftwaffe markings. For the reader unfamiliar with the Lithuanian language, the photos and drawings almost speak for themselves. However, the English translations of the captions put the photos and drawings into historical content. While the translation of the text gives a good summary of the subject, but one can not help wishing for the information that a more complete translation would provide. No self-respecting enthusiast of Baltic aviation should be without this magnificent magazine.

SKRZYDLATA POLSKA. Air Agency Altair, Warecka 11/36, 00-034 Warsaw.

I am very pleased to report that the Skrzydlata Polska, the oldest Polish aviation magazine, which it stopped publishing in 1990, has been resurrected by the Altair publishing group. Four issues are on hand for review, 1/93 and 1, 5, & 6/94. It is now a monthly magazine with glossy paper and color photos throughout. Beside the usual coverage of aviation activities in Poland and in the world, there are articles on the history of Polish aviation as well as articles on the markings of current a/c.

Of particular note in the issues at hand are: 1/93 "Chorwackie MiGi-21" 4 color photos and 4 color side-view drawings of Croatian MiG-21s. 1/94 "Taktyczne Bezpilotowe Samoloty Rozpoznawcze ZSRR" A review of Soviet cruise missiles including photos, scale 3-view drawings, and color side-view drawings of La-17R, DBR Jastrieb (izd.123), WR-3 Rejs, and M-141 Striz; the latter in Ukrainian markings. "Ostatni Lot Bojowy Podporucznika

Krzywika" 6 photos and two color side-view drawings of the a/c (Albatros D.Va & Rumpler C.VII) flow by pp. pil. Teofil Krzywik. "Poziozm" history of the Polish chessboard with photos from a Bristol F2b to the PZL 130 Orlik. 5/94 "16 Eskadra pod Kijowem" photos, color side-view drawings, and color painting of Polish Brequet 14s over Kiev (from book on 16 Eskadra reviewed elsewhere in this issue of SAFO). 6/94 "Polskie Lotnictwo Inwazyjne" Polish a/c on D-Day; 12 photos, a map, and 4 color side-view drawings.

It's great to see SP back and the SAFCH wishes them success.

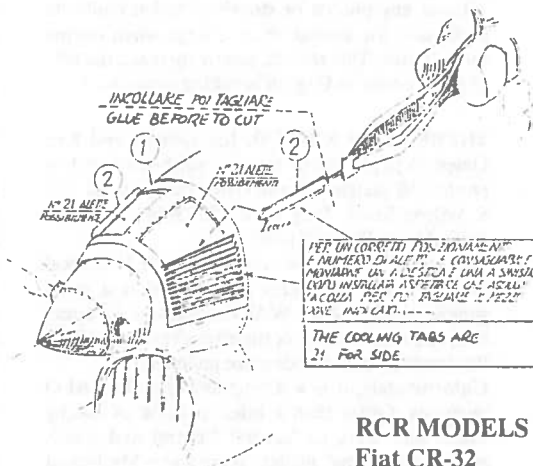
"Regarding your mention of the **JOURNAL OF MILITARY AVIATION**: Scott Van Aken sent me a copy of this last year, and I was so impressed that I immediately took out a subscription. It is very high quality, mostly current or recent US, but it does include some foreign material. US aircraft losses to North Vietnamese MiGs; German commemorative aircraft, MiG, Sukhoi, Transall, and UHID; Desert Storm kills; Japanese Phantoms; Polish Su-20; Brazilian F5 and Mirage; US Navy Adversary aircraft with tail markings which include Cuban, Libyan and Iraqi flags, and North Korean roundels and Soviet stars; Polish MiG15UTI and MiG17 retirement; Israeli C97 and Boeing 707; Canadian F5's of 419 Squadron. It is very detailed with serials, dates, losses, and many good close up photos. Subscriptions for 1993 (6 issues) are \$25 US in the USA, or \$32 US overseas for surface mail.

Paul Adams (SAFCH #773), 81 Ponsonby Road, Ponsonby, Auckland 1, New Zealand.

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RCR MODELS Photo-Etched Brass. Al Soldatino Modellismo, Viale Umbria 41, 20135 Milan, Italy.

Our friend, Felix Rufolo SAFCH #827, is producing a series of etched-brass accessories for Italian a/c. All frets are multi-etched to produce 3-dimensional surfaces and the results are every bit as good as the best from Eduard and, for that matter, from anywhere else. The frets come in two sizes (with price directly tied to size). All review samples were 5 cm by 7 cm except for the Ca.313/14 which is 7 cm by 10 cm. While the instruction sheets are more than adequate, they improve with each new release. The most recent set, the CR-32, has a double-sided sheet measuring 16.5 inch by 11.5 inch and including a parts list in both Italian and English, 3 clear photos, and multiple construction sketches with both Italian and English notations.



RCR MODELS
Fiat CR-32

Sets received of review are: CANT Z.1007 (1/72 scale) S03; 14000 Lira. Caproni CA.313/14 (1/72 scale) S04; 22000 Lira; Macchi MC.200 (1/48-scale) S05; 14000 Lira; Fiat G.91Y (1/72 scale) S08; 14000 Lira; Macchi 202/205 (1/48 scale) S11; 14000 Lira; Fiat CR 32 (1/72 scale) S13; 14000 Lira.

All RCR etched-brass sets can be recommended without reservation. Review samples provided by Felix Rufolo.

[Editor's note: At the present (11 November 1994) exchange rate, 14000 Lira is approximately \$10.00 and 22000 Lira is approximately \$15.00. Al Soldatino Modellismo also provides a series of 1/72- and 1/48-scale, resin-cast kits of Italian a/c, e.g. 1/72 Nardi FN 305, SIAI 207, & Caproni Vizzola F.5 for 35000 Lira, and the 1/72 Caproni 101 and 1/48 Fiat CR-32 are scheduled for release in late 1994.]

LITTLE KNOWN AIR FORCES OF THE 1920s

Part 4: Siam

Lennart Andersson

In 1917, Siam declared war on the Central Powers and sent a contingent of pilots and mechanics to join the allies in France. After World War One, the Siamese contingent in Europe returned home, in August 1919, with a number of Spad S.7 and S.13, Breguet 14, and Nieuport aircraft. The principal base of the Siamese Flying Corps, which now became the Royal Siamese Aeronautical Service, was located at Don Muang. Personnel were sent for training to Europe and to the USA.

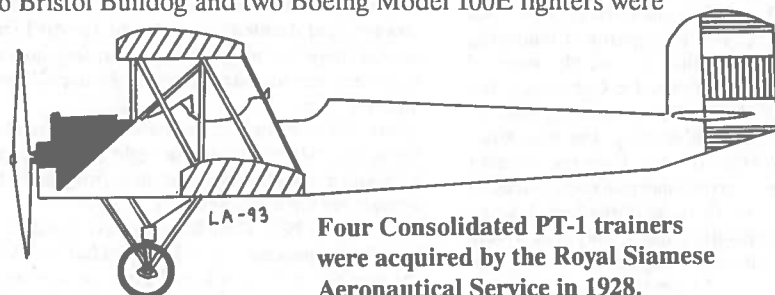
The Breguet 14 was adopted as standard two-seater (Bomber Type 1), and licence production with imported 300-hp Renault engines was started at the workshops of the Aeronautical Service. The Breguet 14 and Breguet 14T transport versions were used for reconnaissance, bombing, topographical survey, transport, airmail and ambulance work. Nieuport ND 29 fighters were acquired, probably in 1923. In 1926 a Junkers F 13 transport that had been demonstrated by a German pilot was almost certainly purchased. A few examples of the Bomber Type 2 Boripatra were built from 1927 and fitted with Jupiter, BMW VI and Curtiss D-12 engines.

After an evaluation of the Avro 504N and Consolidated PT-1 trainers, the Siamese Aeronautical Service selected the former. Twenty were procured from the UK in March 1930 and over 50 were built under licence in 1930-33. A single Heinkel HD 43, two Bristol Bulldog and two Boeing Model 100E fighters were

acquired for evaluation, but in the event the Curtiss Hawk II was selected and ordered.

Qty	Date	Type	Notes
	1919	Spad S.7Cl	s/n 10
	1919	Spad S.13Cl	s/n 3
	1919	Breguet 14	s/ns 2,4,5,8,13
	1919	Breguet 14T	
		Nieuport 11	s/n 4, 23
	1919	Nieuport 12	s/n 1
		Nieuport 17Cl	
	1924-	Breguet 14	Licence-built
	1923?	Nieuport NiD.29Cl	s/n 7
1	1926	Junkers F13	c/n 774
1	6.27	Boripatra	
1	1927	Boripatra	
4	1928	Consolidated PT-1	s/n 3
(2)	1928-29	Boripatra	
2	1930	Heinkel HD43	c/ns 344, 345
2	1.30	Bristol Bulldog IIA	c/ns 7387, 7388
20	3.30	Avro 504N	c/ns 390-409. s/ns 2, 9
50	1930-	Avro 504N	Licence-production
2	11.31	Boeing 100E	c/ns 1487, 1488. s/n 34

Lennart Andersson (SAFCH #68), Tiundagatan 52B, S-752 30 Uppsala, Sweden.



Four Consolidated PT-1 trainers were acquired by the Royal Siamese Aeronautical Service in 1928. (See also SAFO #47 & #50.)

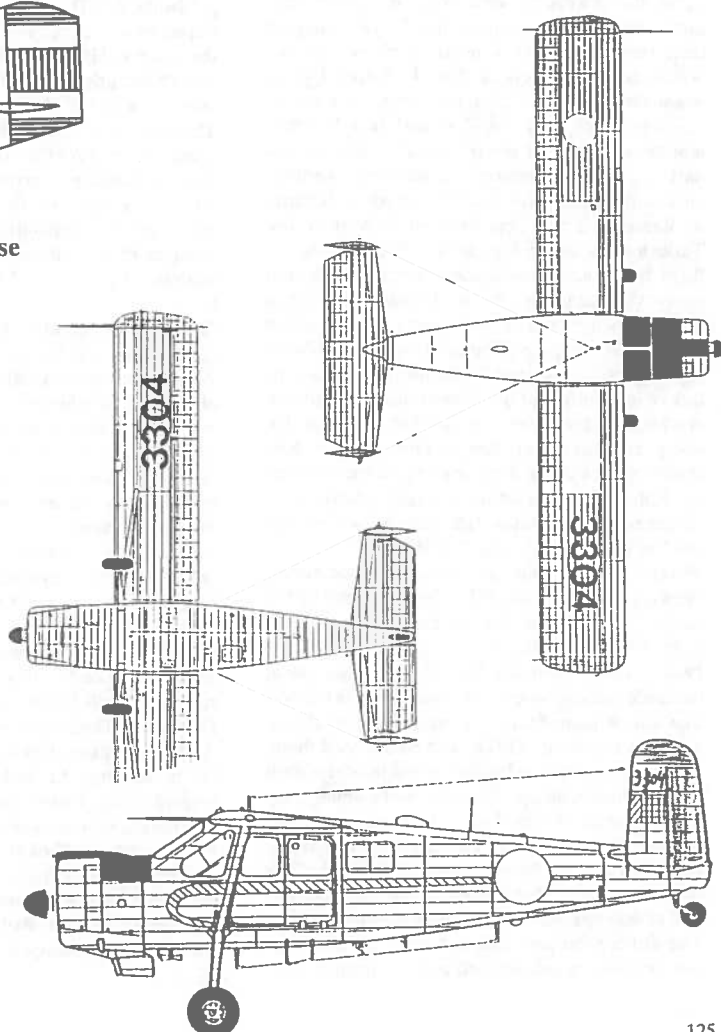
PORTUGUESE BROUSSARD CORRECTIONS

"The drawing of the Portuguese Broussard in Africa (SAFO #70) need some corrections. The original drawing were probably based on information provided by the French manufacturer. The Portuguese Broussards were repainted after arriving in Portugal. I've taken the liberty to retouch Mr.Cance's otherwise excellent drawing: the aircraft number 3304 appears on top of the starboard wing and below the port wing as well as above the fin flash on the outer sides of the vertical tails. 'Day-Glo' red is applied to the tips of the wings and the both sides of the rudders and fin tips. The Portuguese roundels were outlined with a thin blue border. Finally, the a/c was natural metal, not light grey.

"The Portuguese Broussards, received in March and April 1961, received FAP numbers 3301 to 3304. The first '3' denotes a liaison a/c and '300' was the series assigned to this particular a/c type. [The Portuguese Do-27 were given the '400' series, but, when this reached 3499, the remaining Do-27 were numbered in the unused portion of the '300' series, e.g. 3331.]

"During their brief service in Africa, one Broussard was shot down by AA fire and two were damaged in forced landings. 3304, returned to Lisbon to operate in Esquadra 82 together with Beech C-45, Piper L-21B, and Chipmunks before appearing on the civil register as CS-AQJ.

"There was a fifth Broussard, which was cannibalized for spare parts. This plane was numbered 212-C (ex-F-BFDU) and was not given an FAP number." Carlos Oliveira (SAFCH #1366), Av. Carolina Machaelis, No.1, 4 D80, 2795 Linda-a-Velha, Portugal.



"I can sympathize with Mr. Layman in his efforts to find out the truth about the Greek seaplane incident (Moutoussis. Moraitinis and Muddle) which appeared in SAFO #66 of June 1993 as I have been through all this some years ago and still remain somewhat puzzled. A Greek aviation enthusiast actually wrote to me for advice and seemed to want to unravel the story, he never continued the correspondence so presumably he is still trying.

"Contemporary reports in various newspapers and journals can be valuable - but not always. Many of the reporters and correspondents, military observers, etc. were not familiar with aviation and garbled accounts were often passed over the wire. They suffered further mangling by subeditors who often could not get the names right. Items in a foreign language were also assaulted in translation. Some reporters were, however, very experienced and some even had some knowledge of aviation. This is mentioned because of the reliance sometimes put on these fragments. "Official" histories are also occasionally suspect depending on who compiled them. All this combined to present some conflicting information which appeared in contemporary accounts.

"The first war in which aeroplanes (and dirigibles) were used was the Italo-Turkish war of 1911/12 which, in many ways, was the prototype conflict of the 20th Century. I think the editor will receive some letters from our Italian friends regarding at least one comment by Mr. Layman; that is that Moraitinis was "the first serving naval officer to take part in a wartime combat mission by an airplane".

The Italians achieved several firsts in this war and naval officers were involved. When the Italians sent their small Flottiglia Aeroplani to Libya to support their troops, the complement of pilots included Sottotenente di Vascello (Sub. Lt Naval) Ugo di Rossi. On 28 October 1911, he engaged in a reconnaissance flight over Ain Zara and area. It seems that he was the first serving naval officer to take part in a wartime mission in a war zone. Another naval officer achieved another first when Tenente di Vascello Francesco Roberti flew over the Turkish lines on 15 December 1911. During his flight, he was subjected to something new; light and heavier fire from the ground. Unknown to him, a distinguished war correspondent on the Turkish side, one M. Seppings Wright of the Central News Agency, was so frustrated with the Turkish troops lack of ingenuity that he showed them how to aim at a target at the same time and fire in unison. He also persuaded the artillery to raise some of their smaller pieces up on logs or rocks to fire into the air. Roberti was, therefore, the first aviator to be subjected to anti-aircraft fire, later known as "Archie" in WWI and "AckAck" in WWII.

"Several types of hand grenades were used during the wars before August 1914. One type used by the Italians, Greeks, possibly the Turks, and certainly by the French, was the Aasen grenade. In October 1912, a Greek ship fell foul of the Italian naval blockade and was boarded by a party from a cruiser. The search team found a consignment of Aasen grenades bound for Turkey and confiscated them. They were used by the Italians in North Africa until they used them all up. They also had a small army Cipelli grenade. When these missiles hit the ground they exploded immediately so that there was hardly any crater and, on hard ground, none at all. They could, however, inflict serious injuries on troops as well as set corn fields and wooden buildings alight. The Turks most probably had some small bombs and grenades manufactured by the German Car-

bonit Co.

"The French Astra company started by obtaining a licence to build Wright biplanes in France in 1909. In 1912 their own design tractor biplane appeared powered by a 50-hp Renault. Their subsequent models were variations on the 1912 model. In 1913, their Militaire model appeared with a 75-hp Renault. It was then stuck on three floats, given a 100-hp Renault and known as the CM Hydroplane. It is most probably that this is the type sold to Greece.

"Useful sources of information on the Italian campaign in Libya and Cyrenaica include the following: "I Prima Vol Di Guerra Nel Mondo Libia MCMXI" published in Rome, in several parts, in 1961 by Ufficio Storico Dell'Aeronautica. A digest form of this account was compiled by Flt. Lt. D.J. Fitzsimmons and published in AIR PICTORIAL in December 1972. Another source is "Storia Delle Origini Dell'Aeronautica Militare 1884-1915" by Angelo Lodi, parts 1 and 2, published by Ateneo and Bizzarri in Rome in 1977.

"Finally, when the war ended several officers received decorations and awards for service in connection with aviation and the list included nine other serving naval officers apart from those mentioned above."

Harry Woodman (SAFCH #533), 10 The Byeway, East Sheen, London SW14 7NL, England.

"I finally finished reading and digesting SAFO #71 and wanted to jot a quick note to thank you for the very nice review of *Foreign Invaders*. The book is doing very well, I am pleased to report.

"I had comment on friend Hal Ahren's letter you published in #71 regarding the Cuban Hawker Sea Furies as we seem to be in jeopardy of muddying the waters. Hal states that 'apparently, none of these Sea Furies were delivered to Cuba due to the overthrow of the Batista Government by Castro'. This may be somewhat misleading. The all too brief summary of FAEC/FAP. Sea Fury involvement that I included in Central American and Caribbean Air Forces really needs to be fleshed out. Like so many aircraft acquisition deals, this was a very complex story, and can't easily be reduced to neat statistics. Let me see if I can try to sort this out a bit.

"The very first notation I have found relating to the sale of Sea Furies to Cuba was a British Air Attache's comment dated 29 August 1958 to the effect that 'satisfactory progress is beginning to be made and a first contract has been signed for the supply of Sea Furies to the Cuban Air Force to a value of \$1,238,800'. I found it of interest to note that the value of the contract was not expressed in Pounds Sterling!

"A subsequent report went on to note that 'the contracts which have been signed are for the sale of 12 Sea Fury aircraft (and a certain number of Comet tanks). The first 4 of the Sea Furies arrived in Cuba at the beginning of October, 4 are due to arrive at the end of this month (October) and the remainder will follow in mid-November and mid-December. The aircraft are in unmarked crates and the Cuban authorities have evidently succeeded so far in keeping the fact that the first batch has arrived secret. Unfortunately the Hawker Aircraft Co. have announced in answer to press enquiries that the first half of the order has already been delivered.' The British, it should be noted, were very concerned with threats that the Castro forces had made against British property or persons should arms be shipped to the Batista government

for use against them.

"297 rockets and 60,000 rounds of 20mm ammunition for the Sea Furies had not left England as of 20 October and the Cubans were hustling to try to get it shipped by November 5.

"For the record, the actual Export License for the 15 Hawker Sea Fury Mk.11's and two Hawker Sea Fury T.Mk.20's (this is exactly how they were represented on the document) was No.17B/5669/58 dated 5/9/58 and valued at 359,100 pounds sterling. "A subsequent License, No.17B/5716/58 dated 12/9/58, was for spares and ground equipment for the Sea Furies valued at 250,000 PS.

"The Attache reported on 18 November 1958 that Captain de los Reyes, who was the FAEC Action Officer for the Sea Fury purchase, was 'most impressed' with the aircraft and that they were anxious to negotiate a contract for a further 10. These would have been for delivery after the Presidential inaugurating, to take place in February 1959. At this time, further contracts had been placed for other items complementary to the Sea Fury deal: Air frame spares \$344,000; Rockets & ammo \$126,000; Engine spares \$69,000; and Ground equipment \$56,000. The FAEC was also anxious to purchase 250-pound fragmentation bombs for the aircraft and 500,000 rounds of ammunition.

"In the meantime, public attention had been drawn to the sale of the aircraft and arms to Batista and, by 15 December 1958, a Parliamentary Question had been raised regarding the sale of rockets for the aircraft and the status of the last five aircraft, due for shipment on the 'Sarmiento' wasn't clear.

"As of 19 December 1958, the last five Sea Furies had still not been shipped and Her Majesties Government decided to revoke the Export Licenses for these five aircraft. However, they also advised that they would 'reconsider the decision' in a month's time.

"As of 30 December, 12 Sea Furies were actually in Cuba, but '32 firing units for eight of the aircraft' were still in the UK. 'Without these firing units, the aircraft are virtually useless'.

"By 4 August 1959, Cuba was negotiating with Hawkers for the purchase of 15 Hawker Hunter Mk.5's, the deal involving Hawkers 'buying back from the Cuban ministry of defense one Sea Fury for everyone of the Hawker aircraft now being ordered'. This would suggest that there were in fact at least 15 Sea Furies in Cuba at this point, although the fate of the other two is not known. The Hunters in question, incredibly, were T.Mk.5's! On 5 August 1959, the next day, HM Government was advised that the Pakistan Air Adviser had approached W.S. Shackleton Ltd. with a proposition for the export from Pakistan to Cuba of 11 Sea Fury aircraft!

"By 7 August 1959, Castro himself was noted as 'being greatly interested' in the Sea Fury-for-Hunters deal. By this time, of course, most countries were cooperating in the US-led arms embargo against Castro, and this put the UK in a rather tight spot.

"By 20 October 1959, a contract was in fact signed between Cuba and Hawkers for the Hunter/Sea Fury exchange. Cuba would pay \$189,000 for each of the Hunters and Hawkers would take back the Sea Furies at about 20,000 PS each.

"By 29 October, Castro was openly threatening to 'Go behind the Iron Curtain' to get jets if the British government would not approve the Hunter/Sea Fury deal. HM Government's comment on this is truly classic: 'It would seem unfortunate to treat more harshly a leftwing government

struggling, however misguided, to carry through an idealistic programme after we have been willing to do business with Batista'. The deal, in any event, would have had to wait for six to nine months from this date for refurbishment of the Hunters in question.

"On 27 November, the UK formally notified Cuba that the deal had been disapproved.

"From all of the forgoing, it appears that, in fact, all 17 Sea Furies did reach Cuba (even the last five). The aircraft Hal lists would, it seems, probably have been the 10 that Captain de los Reyes suggested in the 18 November 1958 British Attache report but, as negotiations were overtaken by events, their connection with Cuba may be no more than Hawkers anticipation.

"I would also like to note, for the record, that information supplied to me after publication of the Caribbean/Central American book (it is always the way) reveals that FAEC serials assigned did indeed include F.B.11's 515, 540, 550, 500, 545, 555 and 560 and T.Mk.20's 575 and 580. It is, thus, obvious that the 'true' serial range for the FAEC/FAR Sea Furies was 500 to 570 (for the F.B.11's, at intervals of five) and 575, 580 for the T.Mk.20's. The oftquoted serials '541, 542 and 543' are either fictions or numbers applied to display aircraft in error (or intentionally?). These serials, by the way, came from an actual FAEC pilot log book/between 7 April and 11 June 1959.

"Finally, before this thing gets completely out of hand, just a couple of comments and additions on Tony Sapienza's piece on the Grupo Aereo de Transporte Especial. First, c/n '69780' for Cessna 210 FAP0218 is a nonstarter. A more likely c/n would be 59780. Beech A36 Bonanza FAP0215 c/n E911 was actually delivered to Paraguay as ZPPKA (second use) circa September 1976 and was reputed to still bear that registration circa 1981, so its entry onto FAP strength may have been some time after that date, unless it was being used with a civil registration by LATN. Cessna 210N c/n 64346 FAP0219 was formerly (N6348Y, assigned but not worn) and ZPPVB and was registered as such in April 1981. Finally, Cessna '185' FAP0208 is in fact a MAP supplied U17A.

"I'd like to repeat that Tony and I are collaborating on a book entitled *Aircraft of the Chaco War*, and would like to hear from anyone who feels they may be able to add any bits and pieces. For those who may be interested, *ALAE SUPRA CANALEM: The Sixth Air Force and Antilles Air Command in WW2* by yours truly will be released by Turner Publishing Co., 412 Broadway, P.O. Box 3101, Paducah, KY 420023101 at around \$39.95 sometime between now and March 1995. I will be starting North American Texans and Harvards in Latin America this winter (at last)."
Dan Hagedorn (SAFCH #394), P.O. Box 682, Centreville, VA 22020-0682, USA.

[Editor's Note: This letter was found in a pile of unanswered correspondence. It was written 28 January 1993, so please consider this when interpreting dates and sequences of events.]

"Regarding my letter on the RAAF PC9 crash involving two New Zealanders in No.64. The passenger in the aircraft was a liaison officer from the NZ High Commission in Canberra, not the NZ High Command. Diplomatic representation between Commonwealth countries is handled by a High Commission rather than an Embassy, the latter only being used in foreign (non Commonwealth) countries.

"Seychelles Maritime Defender: In the Encyclopaedia of the World's Air Forces, Michael

J.H. Taylor, PSL, 1988, p.132, there is a b&w photo of S7AAD, in an overall light finish, with a black nose radome, and registration high up on the rear fuselage. No other markings are visible. The caption states that it was delivered to the Seychelles Ministry of Agriculture and Fisheries. It has a Bendix RDR1400 radar. The Air Wing, Seychelles Defence Force, is stated to have been formed in 1980. Air Pictorial, April 1980, has an article on Air Seychelles including a listing of the Seychelles civil register, all 12 aircraft. This lists: S7AAD, model BN2A21, c/n 589, previous identity GBELB, Owner Commissioner of Police. The March 1988 issue has a Seychelles Update: 'The Britten-Norman Defender S7AAD, c/n 589, which was delivered to the Commissioner of Police in 1980 has been transferred to the Government. Marked as A2OIM (nothing to do with Botswana!), it is used mainly for fishery protection.' Neither article has a photo of the aircraft.

"Singapore insignia: The Singapore Air Defence Command was formed in 1968, and, on 1 April 1975, it was retitled the Republic of Singapore Air Force. According to Air Forces of the World, Salamander, 1979, it was at this time that the insignia changed from a red/white/red roundel to what it describes as a stylized S. However this marking had already been in use for some time. Air Enthusiast International, June 1974 (this title was used briefly while Air Enthusiast changed its name to the present Air International) has a letter on this. It states that the two-fish design was based on a winning entry in a contest held by the MinDef (presumably Ministry of Defence) 'recently', and that it 'is now to be applied in red and white to all SADC aircraft'. This has now changed to the Lionhead insignia. I have not seen any photos of a red or red/white version, just a lowviz, black-only style which allows the background color to show through. Several versions of the fish style exist: red and white; red and white with a full white outline; what appears to be a redone style on aircraft with a white finish; black-only on camouflaged types; and a black or dark grey and pale grey, almost an off-white, type on the F16. These markings are applied to the rear fuselage sides, or the tail booms of helicopters. Unusually, the Black Knights aerobatic team Skyhawks have their insignia just ahead of the air intakes, on the forward fuselage. The black horse head appears to be the Knight in chess, this marking was also used by VF 805, Royal Australian Navy on its Skyhawks. I think it may have also been used by a US Navy unit as well.

"Very few Singaporean aircraft appear to have any form of national insignia on the wings. I have seen photos of the Short Skyvan in an all white SAR scheme, with roundels above both wings (Air Forces, Salamander; Airfix Magazine, July 1975). Air Pictorial June 1986 has an article on RSAF serials with a photo of a camouflaged C130 which looks to have the red/white fish above the port wing (and RSAF lettering above the starboard wing?). World Air Power Journal, Volume 8, Spring 1992 has a camouflaged Hercules with black-only fish on the fuselage, and RSAF lettering beneath the port wing. But I can not tell if it has anything under the starboard wing. There is also a white Skyvan with a red fuselage fish and something (lettering?) beneath the port wing. Air International August 1986 has a shot of a camouflaged Skyvan with a red and white fish under the port wing. Transport aircraft usually carry the title REPUBLIC OF SINGAPORE AIR FORCE in either black or white letters on the forward fuselage, some also appear to carry the initials RSAF on the wings opposite the national insignia.

"Other Singapore references are: Air Enthusiast,

October 1973; Armed Forces, Ian Allan Ltd, March 1985; Air Forces Monthly March 1991; All of these are British magazines.

"Three short/medium range Andover transports of 42 Sqdn left Whenuapai for Somalia on 1 January 1993, for duty with the UN forces. In December 1992, NZ offered the UN either an infantry unit or a detachment of transport aircraft, and the UN choose the latter. These aircraft are stated to be more suitable for operations in Somalia because they can operate from more of the small airstrips in the country than the larger Hercules. They were only lightly loaded, to increase their range on the long, six day flight, which staged through several countries. The three aircraft concerned, NZ7625, NZ7627, and NZ7629, were all fitted with Global Positioning System navigation equipment. They were followed by a Boeing 727 (NZ7271) and three Hercules INZ7001, NZ7002, and NZ7004 from 40 Sqdn carrying most of the 62 air and ground crew being sent, along with their equipment. The Andovers arrived in Mogadishu on 7 January 1993, where they are now based, distributing food and other supplies around the country. Both NZ7627 and NZ7629 had previously served on rotation with the UN Iran/Iraq Military Observers Group from September 1988 to December 1990, following the 198088 Gulf War.

"On 10 January 1993, another Andover, NZ7623, left for the Solomon Islands to help move supplies about the Cyclone damaged island. Iroquois NZ3807 was already in Fiji, having been flown up aboard a Hercules on 5 January 1993. Both aircraft returned home later in the month. On 8 January 1993, a 5 Squadron P3K Orion was used to drop a container of blood alongside the cruise liner Pacific Princess for an elderly American woman who needed a transfusion. She was later lifted off the ship by a civil rescue helicopter. I assume that this is the same ship that was used in the TV series Love Boat some years ago?

"The BAC Strikemaster Mk.88 jet trainer has been retired from service with the RNZAF. The last flight being made on 16 December 1992. Of the 16 bought in two batches in 1972 and 1975 for use by 14 Squadron at Ohakea, only 10 remained in service by then. Three had already been retired, and three had crashed, the last less than a month before the type was retired. Part of the contract for the Aermacchi MB339, which has replaced the Strikemaster, included the purchase by Aermacchi of seven Strikemasters. The other six will probably go to the RNZAF Museum at Wigram, and the Technical Training Schools.

"Following the introduction of the Aermacchi MB339 in the advanced training role, and a revised pilot training syllabus, the demand for CT4B Airtrainer flying time has been reduced. The Airtrainers have, therefore, taken over the duties of the AESL Airtourer. This means that the Airtourers can also be retired, saving \$78,000 a year in operating costs. The Airtourers were progressively withdrawn over period of six months, the last flight being made in mid-November 1992. The Airtourer was originally an Australian civil type, but in the late 1960s the design was sold to Aero Engine Services Limited, of New Zealand. Four were built for the RNZAF, and delivered in 1970. The type served as the basis of the military Airtrainer, which was exported to both Australia and Thailand. The ex-rnzaf aircraft are now for sale on the civil market."

Paul Adams (SAFCH #773), 81 Ponsonby Road, Ponsonby, Auckland 1, New Zealand.

"Regarding Singapore national insignia, I forgot to

mention last time that some of their Hercules transports, at least, carry a Singapore flag on the forward fuselage. This is a red over white bicolor, with a white crescent moon and five Spoint white stars in the canton. This seems to be a fairly recent innovation.

"On the Seychelles Defender, I came across a short item on the Defence Force Air Wing (four fixed-wing aircraft and two helicopters) in Air Pictorial, February 1985. This has a photo of the aircraft as S7AAD, although this is the same as the one used in the Encyclopaedia of the World's Air Force, but not as closely cropped. The text states: 'The Seychelles first military aircraft, a Britten Norman Maritime Defender, was ordered in June 1979 and was delivered in May 1980. Despite being a Defender version the aircraft has never been armed, although underwing stores pylons are fitted, usually carrying longrange fuel tanks for extended endurance on maritime surveillance missions. This aircraft has always been registered to the Commissioner of Police but is operated by the Air Wing on military flights.' If that is the case, where does the Ministry of Agriculture and Fisheries, mentioned in the Enc of the World's Air Forces, fit in? 'In September 1981 a single Swearingen Merlin IIIB was purchased to supplement the Defender in the maritime surveillance role.' The delivery date for the Defender is given as 27 May 1980.

"Following a 1991 decision to close the airfield at Wigram (to save costs) and move RNZAF flying training elsewhere, it was announced, in December 1992, that Ohakea has been selected as the new home of the Flying Training Wing. The FTW, comprising the Pilot Training Squadron, the Central Flying School, and the RNZAF Historic Flight, will move north by July 1993. The Bell 47 Sioux helicopters used for basic helicopter training, however, are to go back to 3 Squadron at Hobsonville. From 1965 to 1970, 3 Sqdn carried out helicopter training, but in 1970 this job was transferred to the CFS. In 1988, 3 Sqdn retired its last operational Sioux, which were then used solely for training at Wigram, but now they are to get them back.

"At Ohakea PTS instructors will now be responsible for both basic training on the CT4B Airtrainer, and advanced training on the Aeromacchi MB339CB which will be pooled with 14 Sqdn. The latter unit will still carry out strike conversion training. According to the Air Force, there will be no change in the markings of the MB339; although the aircraft are camouflaged, they already have high visibility red/white/blue roundels and fin flashes for their training role. With this move, the FTW will transfer from Support Group to Operations Group, leaving the former without any flying units, which will now all be concentrated in Operations Group.

"The 3 Sqdn Detachment at Wigram, which currently has four Iroquois helicopters, will be reduced to two. The latter will then be the only RNZAF flying unit left in the whole of the South Island. All of these changes are to be made by July 1993.

"The final decision on the fate of Wigram was announced on 11 March 1993. It is to close completely by 31st December 1995. It was decided some time ago to close one of the two bases in the South Island either Wigram or Woodbourne. A review showed that the greatest savings could be made by closing Wigram and moving its remaining ground training units to Woodbourne. Both 2 and 3 Technical Training Schools, and the Command Training School, are to move to Woodbourne by mid-1995. However the RNZAF Museum will remain at Wigram.

"Wigram was originally known as Sockburn and was New Zealand's first military airfield. During WWI, the Canterbury (NZ) Aviation Company was one of two civil flying schools to train pilots for the British forces, as the NZ Government had decided not to form a NZ flying corps, as had Australia and Canada. Postwar it housed the few military aircraft acquired by NZ. In 1923, both the Canterbury Aviation Company and the New Zealand Flying School at Kohimarama in Auckland, ran the first refresher training courses for pilots who had served in the British forces during WWI. Later, in 1923, the Government bought both companies. Sockburn was valued at thirty-one thousand and twelve pounds, 15 shillings, and three pence (sixty-two thousand and twenty-five dollars, and fifty-two cents), less a gift of £10,000 (\$20,000) towards the purchase price from Sir Henry Wigram, the founder of CAC. The NZFS in Auckland was closed down and Sockburn was renamed Wigram in honor of Sir Henry who had long campaigned for the establishment of an air arm.

"NZ3904, the Wasp helicopter which crashed on 20 November 1992, has now been written off and is to be broken up for spares. This leaves the RNZN with six Wasps. The four Airtourers retired last year have now been sold to civil operators; two in NZ and two in Australia. Strikemaster NZ6373 has gone to the RNZAF Museum.

"There has been a change in the way that ground instructional airframes are numbered. Since 1940, a number has been used prefixed by the letters INST. These began at INST 1, for Gloster Grebe NZ501, and ran up to INST 222 for Strikemaster NZ6365. Now, aircraft are to retain their original RNZAF serial with the addition of a G (for Grounded) suffix. This is to be the same size and color as the existing serial and be worn only on the fuselage. INST numbers will now only be issued to aircraft which have not previously flown with the RNZAF and which, therefore, do not have an N-Z prefixed serial. INST 222 has been renumbered NZ6365G under this new system.

"In January 1993, in an item on the TV news about the Iraqis not allowing UN aircraft to fly over Iraq, there was shot of two Luftwaffe C160 Transall transports in white UN markings. Both aircraft had a very small German cross on the fin, flanked by the usual German aircraft number. Unfortunately, the numbers were not clear enough to read. No flag was visible. Aircraft Illustrated, January 1993, has a color photo of Transall 50+?? in similar markings, but with a German flag in the usual location on the fin. Are UN aircraft now carrying the national insignia of the countries they come from as well as UN markings? As far as I know, UN aircraft have not previously worn the insignia of an individual country, only of the United Nations itself.

"I have just seen issue No.4 of a new British aviation magazine called Exclusively Aircraft. It seems to be mainly post-WWII military aviation. The December

1992 issue contains a major article on the Hawk, with color photos of the company demonstrators, Dubai, Finnish, Saudi, Swiss, Zimbabwe, US Navy, and RAF Hawks. Four-view, 1/72-scale drawings of the Hawk 100 with wingtip Sidewinders; Red Arrows 4view, and 5 pages of side views, half of them RAF. The others are: Abu Dhabi, Finland, Indonesia (red and white), Kenya, Kuwait, Saudi Arabia, South Korea, Switzerland, and Zimbabwe. RAF Hawk trainers, with good close ups of the unit markings are also shown. There's a 3-page kit listing. All up, 29 pages. RAF reconnaissance Tornados; 6 pages. Turboprop DC3 conversions; 3 pages. RAF Hercules; 3 pages. RAF Meteor target tugs in Singapore, 1970; 6 pages including 3 pages of drawings. RAF Tornados and Harriers in the Far East, with one photo of an RAAF Hornet with several flags painted on the nose; one page of color photos. EFA prototype; one page of color photos. Romanian IAR 99; one page of color photos. Back cover, color photo of NZ MB339. Current news. UK and BFO £19.50 for one year (12 issues), overseas surface £24.00, overseas airmail £35.00. Exclusively Aircraft Subscriptions Department, Rhinestone Publications Ltd., 83 Victoria Road, Swindon, Wiltshire, SN1 3BB, England, Great Britain.

"On 7 April 1993, Australia is to issue a set of four stamps showing ships of the Royal Australian Navy during WWII. These are: 45c, HMAS Sydney, light cruiser; 85c, HMAS Bathurst, corvette; \$1.05, HMAS Arunta, Tribal class destroyer; and \$1.20, the hospital ship Centaur. Of these, only the Sydney carried an aircraft; a Supermarine Seagull V/Walrus. It is a very nice set. If anyone wants to obtain news of Australian stamps, just write to Australian Stamp Bulletin, Locked Bag 8, South Melbourne, Victoria, Vic 3205, Australia, for a free copy of their collectors magazine."

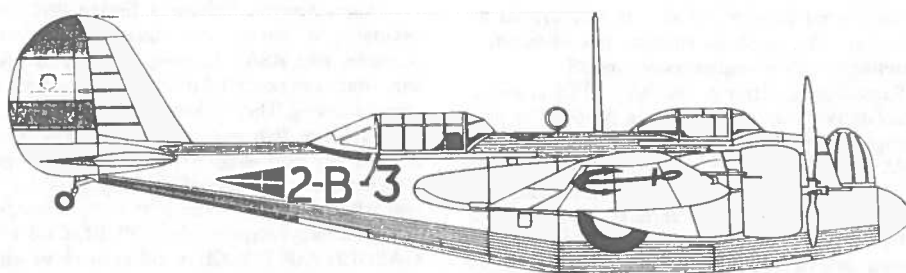
Paul Adams (SAFCH #773), 81 Ponsonby Road, Ponsonby, Auckland 1, New Zealand.

"The Republic of Singapore Air Force are now basing their FTS (Flying Training School) here in Western Australia at Pearce AFB where 130 Sqn RSAF have 16 Siai Machetti S.211 and 14 to arrive in 1994.

"The first two F-11G that the RAAF have bought second-hand from USAF surplus stock are now based at Amberley AFB in Queensland under the command of 6 Sqn RAAF.

"Also, an addendum to my 25 Sqn RAAF article that appeared in SAFO #61. Drawing 4 of Vampire FB.31 A79-308 should have included following: 4a. Front nose-wheel door was post office red with serial number '308' in silver stenciled vertically. 4b. Side nose-wheel door was aluminum with serial number '308' in black stenciled sideways."

Mike Mirkovic (SAFCH #465), 4/3 Burt Way, East Perth, WA 6004, Australia.



Argentine Martin 139WAN, 2-B-3, Base Aeronaval Comandante Espora, February 1939. (See book review on page 123.)

SQUADRONS OF THE ISRAELI AIR FORCE

Update I: 69 to 112 Squadrons

John Hayles

Introduction

This article is a follow up to my five part series which attempted to describe the history of each squadron of the Israeli Air Force. It 'revisits' each unit described in the original series and gives corrections/updates and additional information in the light of further research and contributions from readers. Acknowledgements are given at the end of this feature. The amendments should be read in conjunction with the original entry.

69 Squadron (Ha'Patishim/The Hammers)

Ref[48] gives the B-17 delivery flight as 15 July, not 14 July as widely quoted. The third aircraft was serial 1603. After the end of the War of Independence, two B-17s were equipped with radar for maritime patrol use. The B-17s moved from Ekron to Hatzor in 1951. The unit amalgamated with 103 sqn in late 1954, but the B-17s were placed in storage around June/July 1956. 69 squadron was specially reactivated on 25 October 1956 for the Sinai Campaign. The unit was disbanded in late 1956, shortly after the end of the campaign, and the remaining two B-17s retired.

69 sqn was reformed in October 1969 at Ramat David as the second F-4E squadron, shortly after 201 sqn had reformed on the type. During the War of Attrition, 69 and 201 squadrons together lost nine aircraft over Egypt in the period January-August 1970. Eight new aircraft were delivered from July 1970 to replace these losses. During the Yom Kippur War, 69 squadron lost six aircraft on 7 October 1973 alone, but claimed about 20 victories and flew some 600 ground attack missions.

Standard F-4E squadron operational strength was actually over thirty aircraft, further serial examples being: 203, 209, 225, and 269. Two RF-4Es were received in early 1971, including serial 489, but these aircraft were later pooled into a central reconnaissance unit (see 'V' sqn). The squadron is currently based at Hatzerim with the F-4E-2000.

Figure 1 shows then unit badge in its present form, during the 1970s it was presented simply as an equal-sided shield without the outer disk.

100 Squadron (Kalah/Lightplane Squadron)

More information has come to light on the original light aircraft squadrons Refs[48 & 52].

Tel Aviv Squadron: Formed 27 December 1947 at Sde Dov. Covered central Israel after formation of Negev sqn. In late June 1948 designated 1 sqn. Peak strength 22 a/c.

Type	Qty	Service	Base	Badge	Example Serials
RWD-13	2	27 Dec 47 - Jan 49	Sde Dov		VQ-PAL, PAM
Auster J-1 Autocrat	5	27 Dec 47 - 1952	"		VQ-PAS
DH89 Dragon Rapide	5	27 Dec 47 - 1956	"		VQ-PAR S-74, S-75, S-76
DH82C Tiger Moth	2	27 Dec 47 - Dec 48	"		VQ-PAT, PAU
RC-3 Seabee	1	27 Dec 47 - 15 May 48	"		(VQ-PAV) B-61
Taylorcraft C	2	27 Dec 47 - 1949	"		VQ-PAI, PAJ 0202
C-64A Norseman	7?	June 48 - Dec 48	"		

Miles Aerovan 4	1	17 June 48 - 17 July 48	"		(G-AJWI) B-71
Fchld Argus	3	14 May 48 - 1949	"		G,E,B-33
Bch Bonanza	2+	May 48 - 1953	"		A,D,B-41,B-42
Auster AOP.3/5	6	late Feb 48 - 1952	"		VQ-PAS/5, PAI/7, PAI/2, PAI/3, PAI/5 A-1, A-4, A-10, A-12, A-13, A-31
N1203 Norecrin	2	Aug 48 - June 49	"		169, 170
Piper L-4 Cub	1+	19 Aug 48 - 1949+	"		A-60
Piper PA-18 Super Cub	4	Sept 48 - 1949+	"		A-67, A-69

Negev Squadron (Ha'Negev): Formed 10 March 1948 at Nir'Am. In late June designated 2 sqn. Based at Dorot from mid May 1948. Conducted operations from Beersheba in last stages of War of Independence. Peak strength 7 aircraft.

Type	Qty	Service	Base	Badge	Example Serials
Auster AOP.3/5	2+	10 Mar 48 - 1952	Dorot		VQ-PAS/1, PAI/2 A-4, 0106
Piper PA-18 Super Cub	6+	Oct 48 - 1949+	"		A-52, 0404, 0408
G Widgeon	2	late June 48 - 1949	"		B-72, B-73

Notes: Ref[52] lists Widgeons with Tel Aviv sqn.

Galilee Squadron (Ha'Galil): Formed 5 April 1948 at Yavneel. In late June 1948 designated 3 sqn. Peak strength 7 aircraft.

Type	Qty	Service	Base	Badge	Example Serials
F24R Argus	1	mid Apr 48 - 4 June 48	Yavneel	3	"VQ-PAM" (SU-ADR)
DH89 Dragon Rapide	1+	5 Apr 48 - 1956	"		S-72
Bch Bonanza	1	5 Apr 48 - 1953	"		
Auster AOP.3/5	3+	5 Apr 48 - 1952	"		VQ-PAI/10, PAI/12, A-10, A-11, A-15
Piper L-4 Cub	1+	9 Aug 48 - 1949+	"	3	0409
PA-18 Super Cub	7	Dec 48 - 1949+	"		

Note: Aerovan & Seabee actually with Tel Aviv Sqn, Widgeon with Negev Sqn, Lodestar and Hudson with 106 sqn.

No.4 Squadron:

A small unit dedicated exclusively to photo-reconnaissance missions was formed at Sde Dov in April 1948. It operated with one Auster and one RWD-13 but ceased operations after 'several weeks' of flying.

After amalgamation of the above units into one squadron in June 1949 (at Tel Nof) many types were retired, although several types listed in the above tables served with 100 sqn into the 1950s. In 1951 the unit moved to Ramleh, but when this base was closed in 1959 it moved again to its present base at Sde Dov. On 29 October 1956, the unit had 11 Piper Cubs at Beersheba and 4 more at Eilat. Further serial examples are Cub:51, Super Cub:71.

The Cessna 185s were delivered in 1962. The large number of Cessna U206s quoted is more likely to be around 28-30 aircraft, although this total has now dwindled to around 24 and is shared with 129 sqn. A further example serial is 047. Current

base is Sde Dov.

Figure 82 shows the unit badge.

Add to table:-

Hiller 360	2	May 1951 - Nov 1956	Ramleh		
Fokker S.11	41	mid 1953 - end 1954			
Cessna 182	4+	1960s - 1988+	Sde Dov	82	

101 Squadron (Hkrav Ha'Rishone/First Fighter Squadron)

101 squadron was officially first formed on 29 May 1948 at Ekron, but moved to Herzliya in early June. The unit moved bases several times in its early life, moving to Natanya at the end of July, and back to Herzliya late September 1948. It was based at Hatzor from 9 November 1948 and Ramat David after July 1951. On 15th February 1956 the unit was back at Hatzor again.

Spitfire D-130 was rebuilt as a photo-recce machine. Regarding the P-51s, the two aircraft received in 1948 were acquired in the USA, while the ex-Swedish examples were delivered in July 1951. The squadron was temporarily disbanded in Feb 1956, but officially reformed on the Mystere IVA in June 1956.

101 squadron Mirages originally featured two-digit serials, before falling into line with the other two Mirage squadrons which always carried three digit serials.

101 squadron is credited with the one and only IDF/AF air-to-air kill for the Kfir [ref 13]. The unit disbanded in 1987, but reformed within a year on the F-16D. These aircraft feature a prominent dorsal spine fairing, and are used in the dedicated EW/Defence Suppression role fitted with Israeli manufactured avionics. In 1991 the unit recieved a few single seat F-16C Block 40s. Contrary to some reports [eg: ref 15], this unit has never used the Ouragan, Super Mystere or F-16A/B.

The revised table should read: (Kfir serials are additional)

Type	Qty	Service	Base	Badge	Example Serials
RC-3 Seabee	1	May 48 - 1953	Ekron, Herzliya	5	B-61
Avia S-199	25	29 May 48 - early 1949	"	4,5,6	D-106,D-110, D-118,D-123
Spitfire V/IX	1/1	early July 48 - Dec 1948+	"	4,5,6	D-130,D-131
Spitfire LF.9/16	20	27 Sept 48 - early 1953	Herzliya, Ramat David	4,5,6	D-132,D-134 2008,2015, 2017,2019
P-51D	2	early Oct 1948 - Feb 1956	"	4,5,6	D-141,D-190
P-51D	25	Jul 1951 - Feb 1956	Hatzor	4,5,6	03,12,41
Mystere IVA	30	11 Apr 56 - 1961	Hatzor, Ramat David	5,8	32,33,34,35, 36,301,630
Mirage IIICJ	24	7 Apr 62 - Apr 75	Hatzor	7,8	06,52,159, 341,406,458, 542,551,741, 854,942
Mirage IIIBJ	4	1962 - Apr 75	"	7,8	
Nesher	6	May 1971 - Apr 75	"	7,8	
Kfir C-1	20	14 Apr 75 - 1977	"	7,8	727,743
Kfir C-2	20	May 1977 - 1987	"	7,8	879,874
Kfir TC-2	4	1981 - 1987	"	7,8	310
F-16D	23	1987 - Present	Hatzor	7,8	046,050
F-16C Block 40	2	22 Aug 1991 - Present	Hatzor	7,8	502,503

102 Squadron (The Flying Tiger Squadron)

See 'I' squadron of Part III.

103 Squadron (Elefans Squadron)

In the early days, 'A' Flight was the transport component

and 'B' Flight the Beaufighter unit. Four Beaufighters were delivered late July early August 1948 (serials D-170 to D-173). 'B' flight also operated one Mosquito D-160 (ex G-AIRT) in the photo-recce role during the period 6 July 1948 to September 1948 (with another as a spares source).

103 squadron was first established in May 1948, at Ekron, with one South African Dakota. A few days later, on 26 May, it moved to Ramat David with a strength of two DC-3s, were it was officially formed on 10 June. During the summer of 1948, further DC-3s arrived to bring the total to six aircraft. One Dakota bombed Damascus in June, while others bombed the Egyptian airfield at El Arish. During the Operation Dustbowl airlift from Ekron to Ruchama in October 1948, one aircraft crashed on take-off and another was shot down. During 1950/51 several more Dakotas were recieved to boost the complement to more than a dozen. The unit moved from Ekron to Hatzor in 1951, but moved back again a year later. In late 1954, it amalgamated with 69 squadron, and so operated C-47, B-17, and Catalina aircraft.

For the Sinai Campaign, ten C-47s were loaned by the French Air Force in October 1956, boosting total numbers to 22 C-47/DC-3, but only 16 were available on 29 October 1956. Three N-2501IS Noratlas were delivered in late 1955 (of 6 initially ordered), and were also available, both types being based at Ekron. More Noratlases were received later, including 6 from West Germany in 1962. As a consequence, in 1962 the C-47s were transferred to two other units. A handful went to 122 sqn, while the majority went to form 120 sqn. Figure 9 is the badge of this latter unit. 103 squadron thus became a purely Noratlas squadron.

The Noratlases were sold to Greece in 1976, when 103 sqn received a number of C-130H Hercules (2 aircraft in May 1974 and 6 more from March 1976), but shortly afterwards the unit amalgamated with 131 sqn. Consequently, squadron aircraft carry both Figures 13 and 14, one on each side of the fin.

It is now thought that the Islanders and Aravas were not used by this squadron and thus such references should be ignored (see entries for 'F' and 120 squadrons later).

The revised table should read: (DC-3 serials are additional)

Type	Qty	Service	Base	Badge	Example Serials
C-47/DC-3	22	May 1948 - 1962	Ramat David Ekron		S-81,82,83 4X-FAA, FAG, FAH, FAJ, FAK
Douglas DC-5	1	Sept 1948 - Oct 1948	Ramat David		VH-ARD Bagel Lancer
Nord N2501-IS	6+4	late 1955 - 1976	Ekron, Lod	14	4X-FAB, FAC, FAJ, FAQ, FAT, 045
Nord N2501D	14	1962 - 1976	"	14	
C-130H	2+6	May 1974 - 1976	Lod		4X-FBC,D,Q,S, T,U,Y,Z

Note: One DC-3 based at Ekron for VIP transport in 1948.

Number 35 Flight

This unit had nothing to do with 103 sqn. Only five C-64A Norseman were actually used by this unit: B-52, B-53 (later 0802), B-54, B-55, and B-56 being delivered in the first week of May 1948. By late November 1948, the unit was redesignated 35 Squadron and re-equipping with Harvards serialled B-63 to B-72 (later 1101 to 1110 and 1113). It disbanded January 1949.

Helicopter Flight

Note that Tel Nof and Ekron air bases are different names

for the same place.

104 Squadron

Possibly an early light transport squadron originally. Currently a Kfir C2 reserve squadron at Nevatim.

'A' Squadron

Known as the 'Light Transport Squadron', this unit was formed in 1964 to fly the Do27Q and Do27A, a substantial number being donated by West Germany for AOP use. This unit is identified as 135 sqn. The date of the incident quoted was 30 May 1990. A better drawing of its badge is shown in Figure 83. The main base is at Sde Dov.

Add to table:-

Type	Qty	Service	Base	Badge	Example Serials
Do27A/Q	35	1964 - 1986	Sde Dov	83	09,15,019,037

'B' Squadron (Green Snake Squadron)

AH-1 trials were conducted by the Flight Test Centre from 1974, with the first squadron (now identified as 160 sqn) being formed in 1978.

The initial batch of six AH-1Gs were upgraded to AH-1Q and then to AH-1E (Up-gun AH-1S) standard. A second batch of six AH-1Qs was also upgraded to AH-1E standard circa 1979, with flat plate canopy, long nose gun and sugar scoop exhaust pipe. In the late 1980s, a batch of AH-1F (Modernized AH-1S) Hueycobras was received.

A new badge seen on AH-1Fs is shown in Figure 84.

The revised table reads:-

Type	Qty	Service	Base	Badge	Example Serials
AH-1G	6	1974 - Present	Palmachim	64	324,326
AH-1Q (AH-1E)	6	1978 - Present	"	64	335
AH-1F	10?	late 1980s - Present	"	84	412,483

'C' Squadron

There were three Catalinas, used by 103 squadron 1951 - 1956.

105 Squadron (Akrav/Scorpion Squadron)

The identity of this unit is now confirmed.

105 sqn was actually formed in August 1950 with Spitfires; although it had earlier been expected to receive the Spitfires which instead went to 101 sqn in September 1948. The use of ex-101 sqn S-199s in a composite squadron by January 1949 [ref 2] is therefore discounted. In late 1952 the unit was described as a Fighter/Photo Recce OTU mostly with Spitfires. (Example Spitfire IX serials: 24, 48, 64, 69, 79). The unit temporarily closed in February 1956, but a short while later reformed with P-51Ds on 1 June 1956 at Ramat David. It was placed in reserve (with aircraft going into storage) on 21 September 1956, only to be called up on 25 October for the Sinai Campaign - at which time it had 13 P-51Ds. The unit disbanded late November 1956, with the remaining P-51s going to 116 sqn.

Although the nominal strength of the unit was actually 36 Super Mystere B.2s, it was often much higher than this. During the period 1960-67, Israel undertook the regular overhaul of more than 60 French Air Force Super Mysteres, and many of these aircraft saw short periods of service with the IDF/AF

(without permission) before being returned to their rightful owner. It is of interest that the unit's Scorpion badge is very similar to the marking carried by Armee de l'Air unit EC2/12 (also a Super Mystere B.2 unit at the time). Nine aircraft were lost out 35 in the June 1967 war. (Additional Super Mystere serials: 30, 66, 708) The squadron reportedly used a small number of Neshers after October 1973.

The unit received twenty-four F-4Es in early 1974, the becoming last unit to convert, but has never operated the RF-4E.

The unit now operates the F-16C block 40, having converted in 1991. This variant being distinguished from the block 30 aircraft by the tinted cockpit canopy and an additional blade aerial on the forward part of the fuselage/fin fairing.

Add to table:

F-16C/D Block 40	14/14	1991 - Present	Hatzor	18	D:534
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106 Squadron

Ref[48] gives the date for the formation of ATC (LATA in Hebrew) as 12 June 1948. The Zatec airlift ceased 12 August 1948. All Overseas civil aircraft registrations were cancelled 18 September 1948, and 106 sqn was formed in December 1948. When the unit amalgamated with 103 sqn in June 1949 (ref[52] states May), the combined squadron's C-46 aircraft were progressively passed to Arkia Airlines. As noted in the introduction to Part III, the Boeing Stratos and Boeing 707s were used by a completely different unit, i.e. 'G' sqn - see later.

The latest incarnation of this unit, as an F-15 sqn, was covered in Part IV. A further five F-15Ds were received on 5 May 1992. An additional F-15D serial is 370.

The table should read:-

Type	Qty	Service	Base	Badge	Example Serials
C-46	10+	3 May 48 - 1952	Ekron		RX-130,131,132,133,135,136,137,138 1701,1702,1709 4X-ACG
C-69	1	25 June 48 - late 1948	"		RX-121
C-54	2	1 Apr 48 - 1949	"		(NC58011) 1802, (NC58021) 4X-ACA
Hudson	3	1948 - 1954?	"		
Lodestar	2?	early Sept 48 - 1950+	"		(VH-BF2) (VH-BIH) 2501,11

Notes: 4X-ACA to EL AL Sept 48 as presidential transport w/o 1 Jan 1949,

ref[52] says Lodestars served with 103 sqn not 106 sqn.

107 Squadron (Tayaset Rosh Ha'Aryeh/Lionhead Squadron)

This Spitfire 'OTU' was formed at Ramat David in January 1953. It is now known that the Mystere IVA was not operated by this unit. This unit briefly used Meteors relinquished by 117 sqn for jet conversion training, before handing them on to 110 sqn and converting to the Ouragan. New deliveries of this type arriving from 30 November 1964. The sqn was relegated to a second-line role after 1967. Conversion to the F-4E took place in February 1971 (as the fourth F-4 sqn). The unit tail badge is shown in Figures 85 and 86 and gives rise to an unofficial nickname Zonav Katom/Orange Tails. Re-equipment with the F-4E-2000 is nearly complete.

The table should thus read:

Type	Qty	Service	Base	Badge	Example Serials
Spitfire LF.1XE	15+	Jan 1953 - Mar 1954	Ramat David	22	24
Meteor T.7,T.8, F.8,FR.9	11+	1962 - 1964	Ramat David		
Ouragan	24	Dec 1964 - 1970			51
F-4E	22	Feb 1971 - Present?	Hatzerim	85,86	110,151,189, 216,260
RF-4E	2	early 1971 - late 73	Hatzerim	85,86	

108 Squadron

Currently disbanded. This is thought to have been an OCU squadron, and may be the identity of the Flight School Ouragan unit.

109 Squadron (Valley Squadron)

109 Squadron was the first Mosquito squadron to be formed. Forming in July 1951 at Tel Nof (Ekron), but soon moving to Hatzor, it served as a fighter-bomber unit until disbanded in the spring of 1956. The use of Ouragans by this unit is incorrect. Mystere IVAs were delivered in August 1956 (37 aircraft) including one photo recce variant - becoming the second Mystere unit. Unfortunately, pilot training in France didn't commence until 1957! Five aircraft out of 15 were lost in the June 1967 war. The squadron converted to the A-4H in late 1967, possibly being based at Hatzerim during this period.

On 12 May 1970, the squadron CO, Ezra Dotan flying aircraft '03' scored the A-4's first air-to-air victories, in the form of two Syrian MiG-17s. On 9 October 1973, the CO of the First (Ramat David) Wing scored another kill near Port Said. The A-4H was later replaced by the A-4N.

In 1977 the unit converted to the Kfir C-1, using ex-101 sqn aircraft. The Kfir paragraphs for 110 sqn should actually be taken to apply to 109 squadron instead.

Figure 87 shows the Kfir version of the tail badge (F-16 version given in Figure 25). The light blue background featured on the A-4s was changed to a red one on Kfirs.

The table should read:

Type	Qty	Service	Base	Badge	Example Serials
Mosquito FB.6	25?	July 1951 - Spring 56	Hatzor	23*	
Mosquito PR.16	5	"	"		
Mosquito T.3	1	"	"		
Mystere IVA	37	Aug 1956 - 29 Dec 1967	Ramat David	24	07,15,60
A-4H	24	1 Jan 1968 - 1973	"	87%	03,05,09, 21,28,52, 221,277
TA-4H/ TA-4F	2	late 1967 - 1977	Ramat David	87%	406
A-4N	24	1973 - 1977	"	87%	314
Kfir C-1	20	20 July 1977 - 1981	"	87	710
Kfir C-2/C-7	24	1981 - 1985	"	87	871
Kfir TC-2	4	1981 - 1985	"	87	301
F-16C/D Block 40	14/ 14	2 July 1991 - Present	"	25	C:355 D:041,074

*(with blue rudder) %(blue background)

110 Squadron

Formed in 1953, this unit received a further 14 ex-Royal Navy Mosquito TR.33s in early 1955. 110 sqn was the only user of this variant, used in the bomber rather than attack role. The 13 remaining Mosquitos were placed in storage around June/July 1956, but reactivated on 25 October 1956 at Ramat

David.

In 1964, the squadron received about a dozen Meteors (mostly T.7s, but including some single seaters) from 107 squadron for twin-jet conversion training and target-towing duties. The last surviving Meteors were finally retired in early 1970.

During the Six Day war, a total of 5 (not 4) Vautours were lost out of a total strength of about 20 aircraft. Only ten aircraft remained by August 1970.

Ignore all references to Kfir use by this squadron. This unit received the A-4H version of the Skyhawk (from 1971, becoming the fifth A-4 sqn); and subsequently a number of ex-USN A-4Es to replace Yom Kippur War losses of the H variant. It later re-equipped with the N variant. These latter aircraft eventually going to 115 and 102 sqns when, in 1981, the squadron was the second unit to convert to the F-16A/B.

This squadron's F-16s reportedly have special Israeli Elta 2021B radars. Four aircraft and pilots from 110 sqn (not 101 sqn as stated in Part III) flew in the Osirak Reactor raid of June 1981. The unit upgraded to the F-16C/D version in 1987/88.

Note: Figure 26 is now thought to be a French Air Force unit badge - CIB 328.

The revised table should read:

Type	Qty	Service	Base	Badge	Example Serials
Mosquito FB.6	20?	1953 - early 1957	Hatzor		
Mosquito T.3	1?	"	"		
Mosquito TR.33	14	early 1955 - early 1957	"		
Vautour IIA-12	18	Aug 1957 - 1971	Ramat David /Hatzerim	26,27	03,08,18, 26,109, 116,123, 126
Vautour IIBR	4	July 58 - 1971	"	27	05,33
Vautour IIN	6	Mar 1963 - 1971	"	27	162
Meteor T.7/8/F.8/9	11	1964 - early 1970	"	27	
A-4H	30	1971 - 1977	Ramat David	28	
TA-4H?	2	1971 - 1977	"	28	
A-4E	6+	Oct 1973 - 1977	"	28	232
A-4N	24	1977 - 1981	"	28	
F-16A/B	25/3	Jan 1981 - 1987	"	27	222
F-16C	23	1988 - Present	"	27	359,376
F-16D	2	1991 - Present	"	27	

111 Squadron (Red Bird Squadron)

See 'L' squadron of Part IV.

112 Squadron (Rotor And Sword Squadron)

See 'O' squadron of Part V.

'D' Squadron

This unit has been identified as 190 sqn and has H500MD helicopters based at Palmachim and Ramat David. Another version of the unit badge is shown in Figure 88.

'E' Squadron

This unit has been identified as 193 sqn. The Dolphins have now been repainted from the original white/red USCG colour scheme to a less conspicuous blue-grey scheme, with a new tail badge which is shown in Figure 89. Only two Dolphins are operated, from the base at Palmachim.

'F' Squadron

The Ansons and Consuls were used by a unit designated 114 squadron [ref 46]. Nine Ansons and fifteen Consuls were delivered. On 1 April 1956, the Anson strength stood at 7 aircraft. Both types were based at Kfar Sirkin (the Flight School), not Hatzerim. The unit was disbanded later in 1956 (so ignore C-47 reference), but re-established as the SPS squadron in 1966. An additional Consul serial is '14'.

Hence, the Queen Air unit (now identified as 128 sqn), is not related to the above unit. The Beech Bonanza order is believed to have been cancelled or delayed, since no aircraft had been delivered by 1993. This sqn does, however, now operate some Super King Air 200s delivered recently.

The IDF/AF received two Islanders (possibly donated) from Kanaf/Arkia Airlines in late 1973. Two more were also acquired (commandeered?). The type was retired in 1978. These aircraft may have served with 'A' sqn (Ref[51]), but this is unconfirmed.

The table for 'F' squadron should read:-

Type	Qty	Service	Base	Badge	Example Serials
Beech 65 Queen Air 80	18	1974 - Present	Sde Dov	12?	101,102,104, 110,112 108
BN-2A Islander	4	Oct 73 - 1978	Sde Dov	12	4X-FMA/001, FMC/003, FMD/004
Beech Super King Air 200	4	1990 - Present	Sde Dov		501,504,507,510

'G' Squadron

This squadron was formed in late 1962/early 1963 with four C-47s. To this core were added the B-377M Statos and KC-97s as they individually emerged from a comprehensive overhaul by Bedek Aviation. The first Stratocruiser being delivered in February 1964. A total of 14 B-377Ms and KC-97Gs were eventually used (see table for details) before the last one was retired in April 1978.

Two C-130H were received in October and November 1971, but later passed on to 131 sqn.

The first Boeing 707 was delivered in January 1972, and the type eventually completely replaced the Stratos. The Boeing 707 fleet has included nine EW versions, four tankers and at least one dedicated medical aircraft. It is now reported (ref[51]) that the long range VIP transport/tanker sqn is designated 122 sqn (Figure 21 tail badge), while the EW and Recce versions of the Boeing 707 are operated by 134 sqn (plain tailfin) formed in 1977. However, other references, including refs[42 & 49], have quoted 120 sqn as being the former unit. This identity conflict is

not yet resolved. Lod is actually Ben Gurion Air Base (at Ben Gurion IAP).

The revised table reads:-

Type	Qty	Service	Base	Badge	Example Serials
C-47	4	late 62 - 1972+	Lod	21	4X-FNN/16
B-377M	5	Feb 64 - Dec 75	Lod	21	4X-FPV/10, W/15, X/98, Y/97, Z/96
KC-97F	1	Nov 68 - Dec 75	"	21	4X-FPU/038
KC-97G	8	June 67 - April 78	"	21	4X-FPM/40, N/39, O/35, P/30, Q/32, R/33, S/37, T/31
C-130H	2	Oct 71 - 1976	"	21	4X-JUA/02, 4X-JUB/06
Boeing 707-124/131	3/10	Jan 1972 - Jan 1984	"	21	4X-JYA, JYB, JYD, JYH, JYI
Boeing 707-300 srs	16+	May 1977 - Present	"	21	4X-JYK, JYN, JYV, JYW, JYZ
IAI 1123 Westwind 1	2	Oct 1973 - Present	"	21	4X-JYR/035 (4X-JYG/064 loaned)

The Naval Flight (actually 195 sqn) SeaScans have also been repainted in grey colour scheme, including 4X-JYO/031 and 4X-JYJ (4X-JYF/003 was only loaned). The aircraft are now serialised 927, 929, and 931.

Once again, any further comments on the above are still welcomed.

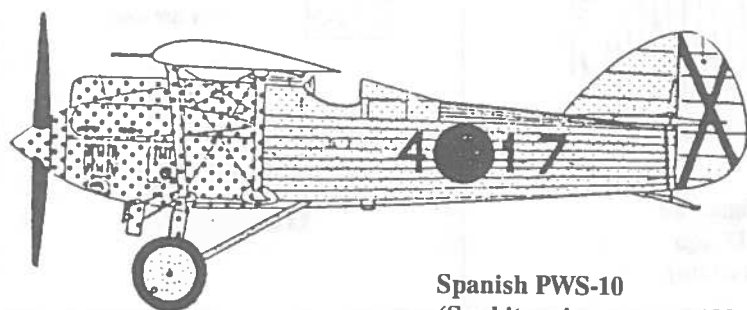
Additional References:

41. Aviation News 14-27 August 1992
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43. Military Enthusiast 28
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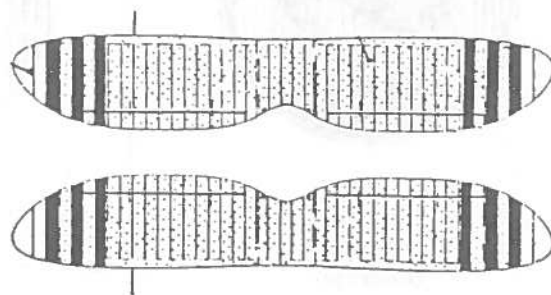
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John Hayles (SAFCH #463), 14 Meadow Garth, Beverley High Road, Hull, North Humberside, HU6 7YJ, England.



Spanish PWS-10
(See kit review on page 108.)



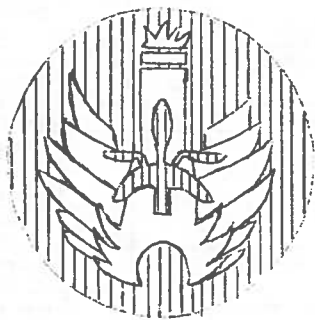


Figure 82
100 Sqn
(tail fin)



Figure 83
'A' Sqn
(tail fin)

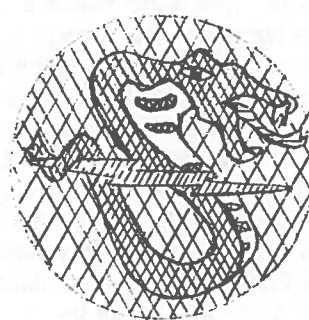


Figure 84
'B' Sqn
(tail fin)

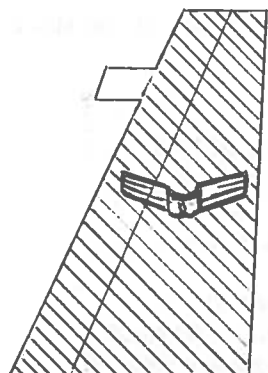


Figure 85
107 Sqn
(rudder)

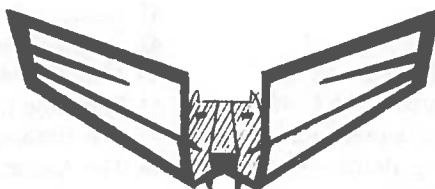


Figure 86
107 Sqn
(detail)



Figure 87
109 Sqn
(tail fin)



Figure 88
'D' Sqn
(fuselage)

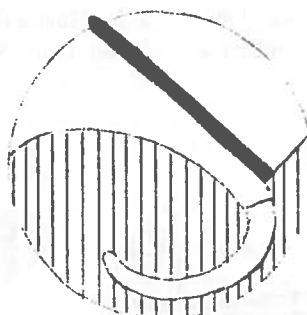


Figure 89
'E' Sqn
(tail fin)



dark green



medium green



orange-red

Israeli AF Sqn
Update I



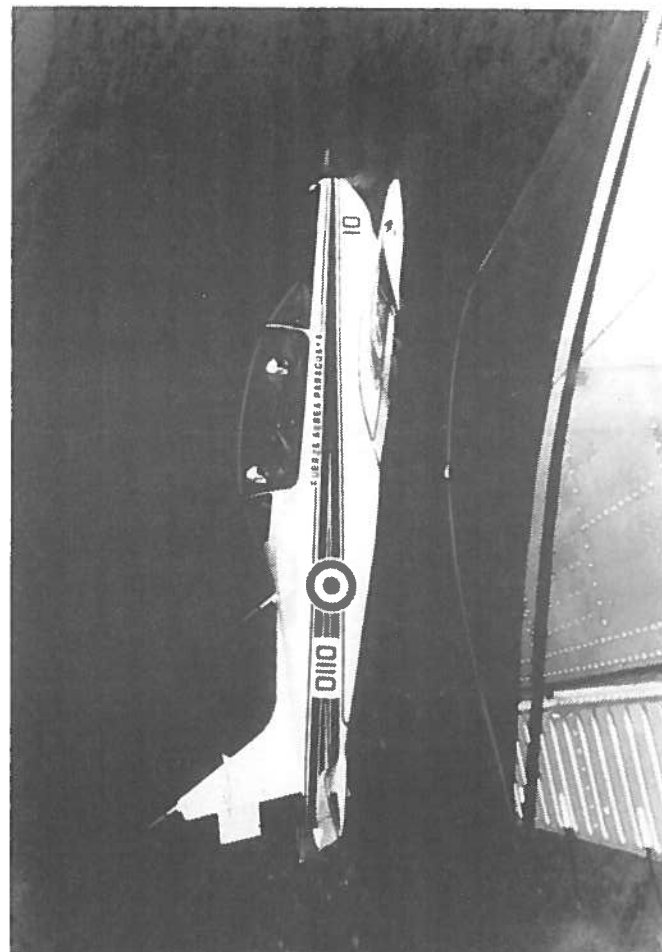
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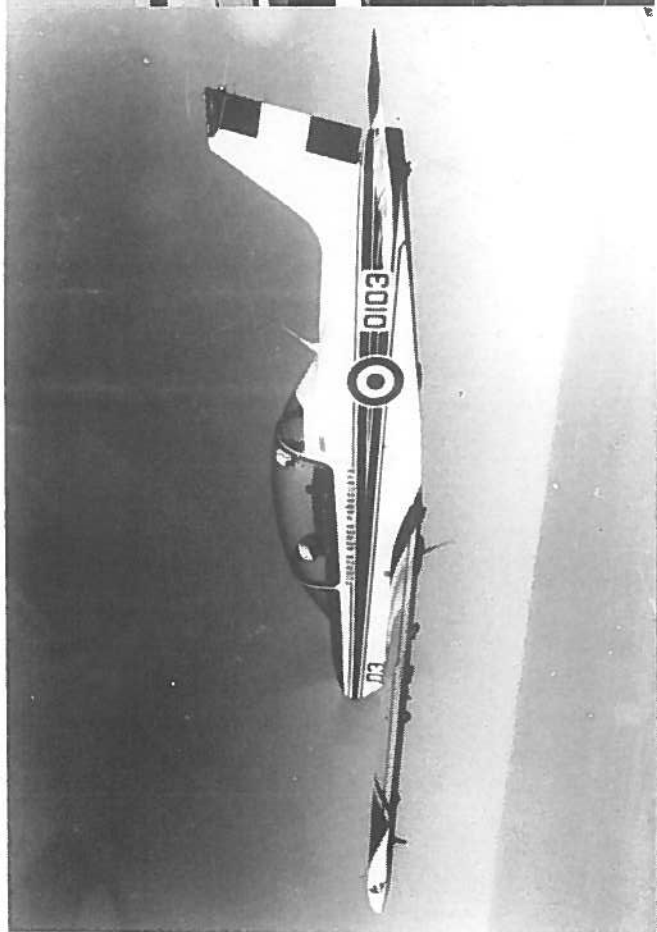
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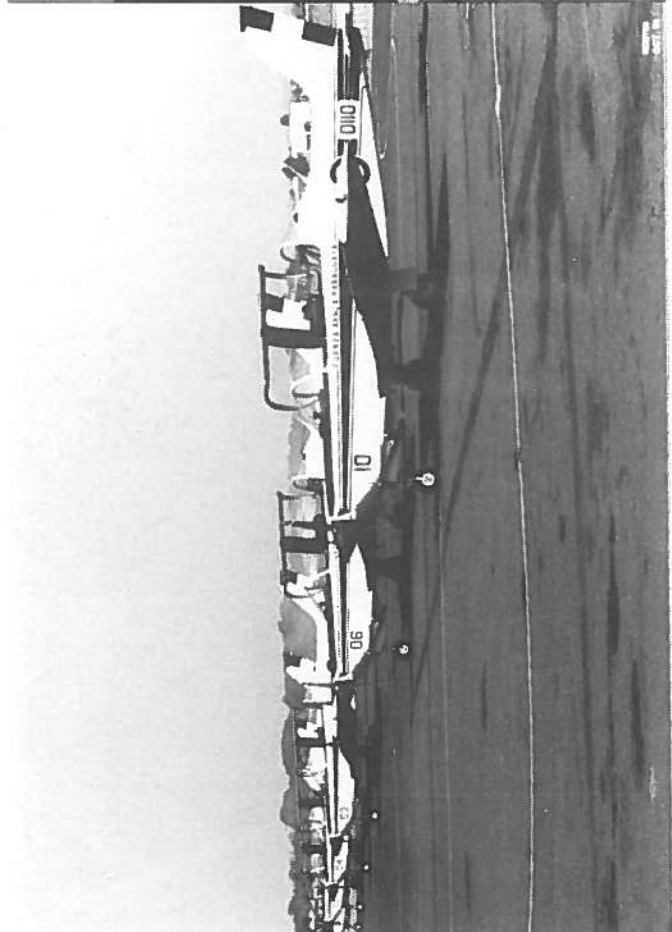
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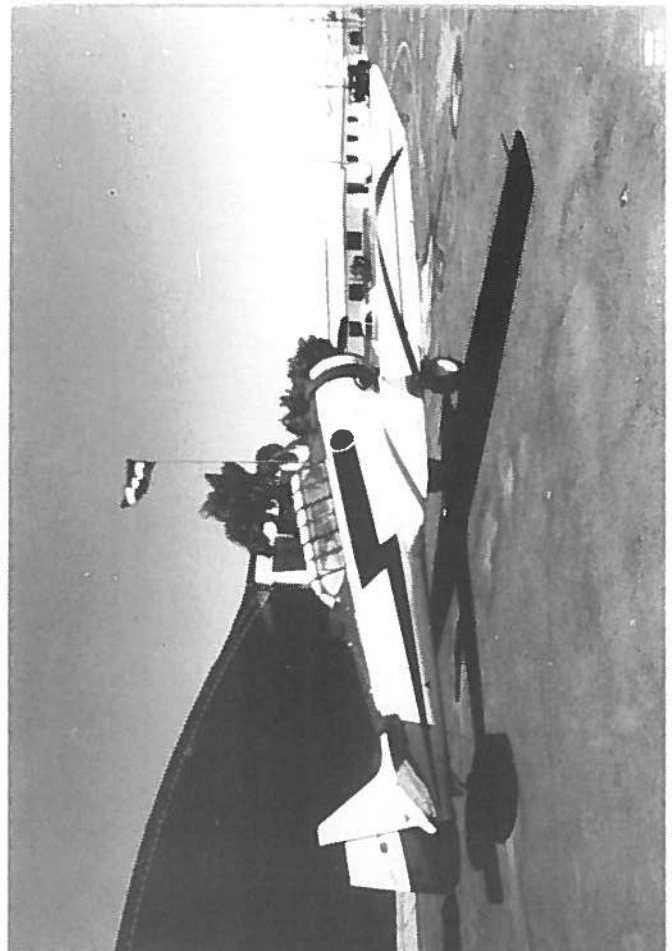
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